Disclosure Report

in accordance with Part 8 of the Capital Requirements Regulation (CRR)

as at 30 June 2023

Deutsche Pfandbriefbank Group

Overview

Deutsche Pfandbriefbank Group (“pbb Group“)

EU KM1: Key metrics

		a	b	c	d	e
	All figures in € million, unless otherwise stated	**30.06.2023**	**31.03.2023**	**31.12.2022**	**30.09.2022**	**30.06.2022**
	Available own funds (amounts)					
1	Common Equity Tier 1 (CET1) capital	2,775	2,831	2,843	2,823	2,841
2	Tier 1 capital	3,072	3,129	3,141	3,121	3,139
3	Total capital	3,518	3,650	3,707	3,715	3,703
	Risk-weighted exposure amounts					
4	Total risk-weighted exposure amount	17,297	17,089	17,017	17,279	16,481
	Capital ratios (as a percentage of risk-weighted exposure amount)					
5	Common Equity Tier 1 ratio (%)	16.0	16.6	16.7	16.3	17.2
6	Tier 1 ratio (%)	17.8	18.3	18.5	18.1	19.0
7	Total capital ratio (%)	20.3	21.4	21.8	21.5	22.5
	Additional own funds requirements to address risks other than the risk of excessive leverage (as a percentage of risk-weighted exposure amount)					
EU 7a	Additional own funds requirements to address risks other than the risk of exces-sive leverage (%)	2.5	2.5	2.5	2.5	2.5
EU 7b	thereof: to be made up of CET1 capital (percentage points)	1.4	1.4	1.4	1.4	1.4
EU 7c	thereof: to be made up of Tier 1 capital (percentage points)	1.9	1.9	1.9	1.9	1.9
EU 7d	Total SREP own funds requirements (%)	10.5	10.5	10.5	10.5	10.5
	Combined buffer and overall capital requirement (as a percentage of risk-weighted exposure amount)					
8	Capital conservation buffer (%)	2.50	2.50	2.50	2.50	2.50
EU 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)	-	-	-	-	-
9	Institution specific countercyclical capital buffer (%)	0.55	0.36	0.22	0.09	0.02
EU 9a	Systemic risk buffer (%)	0.07	0.06	-	-	-
10	Global Systemically Important Institution buffer (%)	-	-	-	-	-
EU 10a	Other Systemically Important Institution buffer (%)	-	-	-	-	-
11	Combined buffer requirement (%)	3.12	2.92	2.72	2.59	2.52
EU 11a	Overall capital requirements (%)	13.62	13.42	13.22	13.09	13.02
12	CET1 available after meeting the total SREP own funds requirements (%)	9.8	10.4	10.6	10.2	11.2
	Leverage ratio					
13	Total exposure measure	48,594	54,061	53,419	56,138	55,210
14	Leverage ratio (%)	6.3	5.8	5.9	5.6	5.7
	Additional own funds requirements to address the risk of excessive lever-age (as a percentage of total exposure measure)					
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)	-	-	-	-	-
EU 14b	thereof: to be made up of CET1 capital (percentage points)	-	-	-	-	-
EU 14c	Total SREP leverage ratio requirements (%)	3.0	3.0	3.0	3.0	3.0
	Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)					
EU 14d	Leverage ratio buffer requirement (%)	-	-	-	-	-
EU 14e	Overall leverage ratio requirements (%)	3.0	3.0	3.0	3.0	3.0
	Liquidity Coverage Ratio					
15	Total high-quality liquid assets (HQLA) (Weighted value - average)	4,719	5,207	5,588	5,784	5,837
EU 16a	Cash outflows - Total weighted value	2,327	2,365	2,670	2,722	2,703
EU 16b	Cash inflows - Total weighted value	425	411	339	303	292
16	Total net cash outflows (adjusted value)	1,902	1,953	2,331	2,419	2,411
17	Liquidity coverage ratio (%)	254	275	254	250	254
	Net Stable Funding Ratio					
18	Total available stable funding	39,210	41,264	40,584	43,379	44,293
19	Total required stable funding	34,488	35,191	36,655	38,798	38,887
20	NSFR ratio (%)	114	117	111	112	114

Please note:

The monetary values reported in pbb Group's Disclosure Report are stated in millions of euros, in accordance with Article 19 no. 4 of Implementing Regulation (EU) 2021/637 (Pillar 3 framework). The figures have been rounded in line with standard commercial practice. Rounding means that the totals shown in the tables may differ slightly from the totals calculated by adding up the individual values shown. Individual values of less than € 500,000 are generally not disclosed due to commercial rounding, instead shown as zero or as zero balances indicated by a hyphen. The principle of materiality pursuant to Article 432 (1) of the CRR is observed when disclosing information.

With regard to the CRR and CRD regulations, uncertainty remains as to how some of the regulations are to be interpreted, and regulators have yet to publish the final versions of some of the related mandatory regulatory technical standards. As a result, Deutsche Pfandbriefbank AG ("pbb") will adjust its assumptions and models on an ongoing basis, as its understanding and interpretation of the rules, and those of the sector as a whole, evolve. With this in mind, current CRR/CRD metrics might not be comparable to previous expectations. CRR/CRD metrics may also not be comparable to metrics reported by competitors with similar designations, as their assumptions and estimates may differ from those of pbb.

Contents

Introduction

Deutsche Pfandbriefbank ("pbb")

Deutsche Pfandbriefbank Group ("pbb Group") consists primarily of the parent entity Deutsche Pfandbriefbank AG ("pbb"). pbb, which has its registered office in Munich/Garching, is a leading European specialist in commercial real estate finance, focusing on business eligible for inclusion in Pfandbrief cover. The geographic focus is on Europe and the US. It issues Mortgage Pfandbriefe, collateralised by real property liens, and, measured by outstanding volume, is one of the largest issuers of Pfandbriefe (German covered bonds), making it an important player in the European covered bond markets. pbb offers its clients a strong local presence in its core markets, covering all phases of the financing process. The Bank leverages its loan structuring expertise, cross-border business approach and relationships with partners to deliver complex financing solutions and execute cross-border transactions.

In March 2023, pbb Group unveiled an update to its strategic initiatives, which also comprised specific targets such as its plan to expand the Bank's business model by the Real Estate Investment Management division. In creating the new Real Estate Investment Management division, the Group is working towards the future diversification of its business model. In this context, Dr Pamela Hoerr joined the Bank as a Senior General Manager on 17 April 2023. Subject to regulatory approval, Dr Hoerr is scheduled to assume responsibility for the division as a Management Board member in 2024. The Bank is preparing the groundwork for the division, searching for the right assets, and setting up the sales department.

Within the implementation of its strategic agenda and stronger focus on its higher-margin core business in commercial real estate finance (Real Estate Finance, REF), pbb merged the Public Investment Finance (PIF) and the Value Portfolio (VP) segments in the first quarter of 2023 to form the new Non-Core (NC) segment. With this decision, pbb no longer considers public investment finance business as a strategic activity and will no longer enter into new business pertaining to this sector. At the same time, the Bank is aiming for an accelerated, value-preserving portfolio run-down.

pbb Group also decided to discontinue the intermediation franchise of CAPVERIANT GmbH, a jointly held subsidiary of pbb and Caisse des Dépôts et Consignations (CDC) that specialises in brokering municipal loans, in March 2023, when updating its strategic initiatives and enhancing its focus on the core business of commercial real estate finance. In June 2023, pbb repurchased the 28.57% stake held by CDC in CAPVERIANT GmbH. As a result, pbb became the sole shareholder of CAPVERIANT GmbH as at 30 June 2023. CAPVERIANT GmbH ceased operations in June 2023.

pbb is listed in the Prime Standard segment of the Regulated Market at the Frankfurt Stock Exchange. Its shares are included in the SDAX® index.

pbb is classified as a significant supervised institution in a euro area member state under the Single Supervisory Mechanism (SSM), meaning that it is subject to direct supervision by the European Central Bank (ECB). pbb is not, however, classed as a Global Systemically Important Institution (G-SII). Disclosure pursuant to Article 441 of the Capital Requirements Regulation (CRR, "Disclosure of indicators of global systemic importance") is not relevant for pbb Group.

Objective of the Disclosure Report

As the parent company of a regulatory group of institutions, pbb (LEI code: DZZ47B9A52ZJ6LT6VV95) uses this Disclosure Report to implement the disclosure requirements pursuant to Part 8 of the CRR, i.e. Regulation (EU) 2019/876 amending Regulation (EU) No 575/2013, for pbb Group as at 30 June 2023.

Provisions on the disclosure requirements are set out in Articles 431 to 455 of the CRR; additional requirements can be found in section 26a (1) sentence 1 of the German Banking Act (Kreditwesengesetz – "KWG"). To comply with these disclosure requirements, pbb applies the uniform disclosure formats of the European Banking Authority (EBA) in accordance with Implementing Regulation (EU) 2021/637 (Pillar 3 framework). Reporting currency is the euro. pbb is classed as a large institution pursuant to Article 4 (1) no. 146 of the CRR, meaning that it implements the frequency requirements pursuant to Article 433a of the CRR. This report covers the disclosure period from 31 March 2023 to 30 June 2023, although the reference period for certain tables and information may differ, depending on the relevant disclosure cycle pursuant to Article 433a of the CRR. The reference reporting date for information to be disclosed on a semi-annual basis is 31 December 2022. The reference reporting date for information to be disclosed on a quarterly basis is 31 March 2023.

Unlike the interim report under IFRS, the Disclosure Report focuses primarily on the regulatory perspective. In accordance with Article 433a (1) (b) of the CRR, this Disclosure Report especially includes information on:

- regulatory capital (own funds) and capital ratios
- regulatory capital (own funds) requirements and risk-weighted exposure amounts
- the countercyclical capital buffer
- the leverage ratio
- default risk (credit risk, counterparty credit risk)
- market risk, including interest rate risk in the banking book
- liquidity and funding risk
- environmental, social and governance (ESG) risk

In accordance with Article 432 of the CRR, institutions may omit one or more items of information referred to in Part 8, Titles II and III of the CRR where the information provided by those disclosures is not regarded as material or those items include information that is regarded as proprietary or confidential. pbb has not made use of this option.

Formal procedures and regulations to comply with disclosure requirements

One major element for complying with the Pillar 3 disclosure requirements, apart from the Disclosure Report itself, is the written documentation of the procedures and regulations used in the course of the disclosure process. According to Article 431 (3) of the CRR, pbb Group has thus implemented formal procedures and regulations designed to assure (adequate) compliance with the disclosure requirements in accordance with the CRR, and has documented them in a Disclosure Policy. This policy describes all material, inherent principles of disclosure in accordance with Part 8 of the CRR, e.g. the nature and scope of disclosure, including the use of disclosure waivers, the adequacy of information, the disclosure medium and disclosure deadlines, the frequency of publication, responsibilities and the integration of the disclosure process into internal bank processes and structures. The policy also contains directives on the regular verification of the adequacy and practicality of disclosure practices applied within pbb Group, as well as defined disclosure standards and processes. The Disclosure Policy is reviewed and aligned with current market requirements on a regular basis.

As part of the disclosure process, pbb Group has established various control procedures which are used to check whether the data disclosed is complete, accurate and adequate. The procedures and regulations implemented for disclosure are also regularly monitored by Internal Audit and reviewed by the auditor of the financial statements. The Disclosure Report itself is not audited by pbb Group's external auditors, as a result of which the Pillar 3 disclosures in this report are not certified.

The Disclosure Report is approved by the entire Management Board. An attestation issued by the Management Board pursuant to Article 431 (3) of the CRR can be found at the end of this Disclosure Report.

Means of disclosure

In accordance with Article 434 of the CRR, the Disclosure Report is published as a standalone report on pbb's website (www.pfandbriefbank.com) under Investors / Mandatory Publications / Disclosure Report in accordance with Part 8 of the CRR. pbb informs the ECB, Deutsche Bundesbank and the German Federal Financial Supervisory Authority (BaFin) of the date and medium of publication.

Scope of application

In accordance with Article 13 (1) of the CRR, the Disclosure Report includes the disclosure on the basis of the consolidated situation for pbb Group. Additional disclosure at individual institution level or on a sub-consolidated basis in accordance with Articles 6 and 13 of the CRR is not required for pbb as the ultimate parent institution of a regulatory group of institutions. pbb is itself an EU parent institution pursuant to Article 4 (1) no. 29 of the CRR.

The basis is the scope of prudential consolidation pursuant to Articles 18 to 24 of the CRR. The scope of prudential consolidation and the accounting scope of consolidation for pbb's consolidated financial statements (IFRS) are identical as at the disclosure date. Disclosure on the basis of the consolidated situation requires that business relationships within pbb Group are offset and that intra-group transactions are eliminated. The regulatory values and indicators are calculated on the basis of the International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS).

The Disclosure Report as at 31 December 2022 (chapter "Regulatory and accounting consolidation", page 26), table EU LI3: Outline of the differences in the scopes of consolidation (entity by entity), comprises a list of pbb's subsidiaries consolidated for regulatory purposes. There were no changes to pbb Group's regulatory scope of consolidation in the first half of 2023.

On 27 June 2023, pbb's Management Board resolved to merge CAPVERIANT GmbH with pbb, with economic effect as at 1 January 2023. The merger was notarially recorded on 21 August 2023 and will become legally effective with entry in the commercial register, anticipated for the second half of 2023.

In addition, pbb acquired 35% of shares in newly-established ECO Estate GmbH, a company advising enterprises regarding the environmental, social and governance (ESG) aspects of real estate, on 26 May 2023.

Waiver pursuant to the CRR

In the first half of 2023, as in the previous year, pbb made use of the relief provided by the waiver pursuant to Article 7 (3) of the CRR as well as a waiver granted by the ECB pursuant to section 2a (2) of the KWG. For further information on this topic, please refer to the Disclosure Report as at 31 December 2022 (chapter "Introduction", page 7). pbb Group has not made use of individual consolidation in accordance with Article 9 of the CRR.

Own funds and assets

Own funds

This chapter presents the information pursuant to Article 437 of the CRR on pbb Group's own funds. It also contains general information on own funds and eligible liabilities (MREL).

Regulatory own funds

The regulatory own funds decisive for meeting the regulatory capital requirements, and therefore for the capital backing of the various risk types – default risk (credit risk, counterparty credit risk including CVA risk), market risk, operational risk, and settlement risk – are determined based on the regulations set out in Part 2 of the CRR. They comprise:

> Common Equity Tier 1 (CET1) capital
> Additional Tier 1 (AT1) capital and
> Tier 2 (T2) capital.

They are based on pbb's consolidated financial statements (IFRS), taking regulatory adjustments into account. In line with the provisions stipulated in the CRR, the consolidated profit generated during the period from 1 January to 30 June 2023 (net income: € +69 million) and the AT1 capital coupon payment made in April 2023 (€ -17 million) are not considered when determining regulatory own funds. In June 2023, pbb repurchased the 28.57% stake held by Caisse des Dépôts et Consignations (CDC) in CAPVERIANT GmbH, which added € 2 million to the Bank's CET1.

The following table EU CC1 pursuant to Article 437 (a), (d), (e) and (f) of the CRR and Article 444 (e) of the CRR shows the composition of regulatory own funds, as well as the capital ratios and capital buffers for pbb Group as at the disclosure date. The basis for the own funds presented in the table is the COREP reporting of own funds and own funds requirements of pbb Group as at the reporting date of 30 June 2023.

Table EU CC1 contains cross-references (column b) to the relevant item in table EU CC2 for the reconciliation of regulatory own funds with pbb's published consolidated statement of financial position or reported equity (IFRS).

EU CC1: Composition of regulatory own funds

All figures in € million, unless otherwise stated		a 30.06.2023	b Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
Common Equity Tier 1 (CET1) capital: instruments and reserves			
1	Capital instruments and the related share premium accounts	2,017	Reference EU CC2, line 31
1a	thereof: subscribed capital	380	Reference EU CC2, line 32
1b	thereof: additional paid-in capital	1,637	Reference EU CC2, line 33
2	Retained earnings [1)]	1,089	Reference EU CC2, line 34
3	Accumulated other comprehensive income (and other reserves)	-113	Reference EU CC2, line 35
EU-3a	Funds for general banking risk	-	
4	Amount of qualifying items referred to in Article 484 (3) CRR and the related share premium accounts subject to phase out from CET1	-	
5	Minority interests (amount allowed in consolidated CET1)	-	
EU-5a	Independently reviewed interim profits net of any foreseeable charge or dividend	-	Reference EU CC2, line 36
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**2,992**	Reference EU CC2, line 38
Common Equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative amount)	-5	Reference EU CC2, line 39
8	Intangible assets (net of related tax liability) (negative amount)	-42	Reference EU CC2, line 40
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	-15	Reference EU CC2, line 41
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	24	Reference EU CC2, line 42
12	Negative amounts resulting from the calculation of expected loss amounts	-29	Reference EU CC2, line 43
13	Any increase in equity that results from securitised assets (negative amount)	-	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-	Reference EU CC2, line 44
15	Defined-benefit pension fund assets (negative amount)	-	
16	Direct, indirect and synthetic holdings by an institution of own CET1 instruments (negative amount)	-	
17	Direct, indirect and synthetic holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
18	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
EU-20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	-	
EU-20b	thereof: qualifying holdings outside the financial sector (negative amount)	-	
EU-20c	thereof: securitisation positions (negative amount)	-	
EU-20d	thereof: free deliveries (negative amount)	-	

All figures in € million, unless otherwise stated		(a) **30.06.2023**	(b) **Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation**
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	-	
22	Amount exceeding the 17,65% threshold (negative amount)	-	
23	thereof: direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	-	
25	thereof: deferred tax assets arising from temporary differences	-	
EU-25a	Losses for the current financial year (negative amount)	-	
EU-25b	Foreseeable tax charges relating to CET1 items except where the institution suitably adjusts the amount of CET1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses (negative amount)	-	
27	Qualifying AT1 deductions that exceed the AT1 items of the institution (negative amount)	-	
27a	Other regulatory adjustments to CET1 capital (including IFRS 9 transitional adjustments when relevant)	-152	Reference EU CC2, line 45
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**-218**	Reference EU CC2, line 46
29	**Common Equity Tier 1 (CET1) capital**	**2,775**	Reference EU CC2, line 47
Additional Tier 1 (AT1) capital: instruments			
30	Capital instruments and the related share premium accounts	298	Reference EU CC2, line 48
31	thereof: classified as equity under applicable accounting standards	298	Reference EU CC2, line 49
32	thereof: classified as liabilities under applicable accounting standards	-	Reference EU CC2, line 50
33	Amount of qualifying items referred to in Article 484 (4) CRR and the related share premium accounts subject to phase out from AT1 as described in Article 486(3) CRR	-	
EU-33a	Amount of qualifying items referred to in Article 494a(1) CRR subject to phase out from AT1	-	
EU-33b	Amount of qualifying items referred to in Article 494b(1) CRR subject to phase out from AT1	-	
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	-	
35	thereof: instruments issued by subsidiaries subject to phase out	-	
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	298	Reference EU CC2, line 51
Additional Tier 1 (AT1) capital: regulatory adjustments			
37	Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	-	
38	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
39	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
40	Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	-	

All figures in € million, unless otherwise stated		(a) 30.06.2023	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
41	Empty set in the EU	-	
42	Qualifying T2 deductions that exceed the T2 items of the institution (negative amount)	-	
42a	Other regulatory adjustments to AT1 capital	-	
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**0**	Reference EU CC2, line 53
44	**Additional Tier 1 (AT1) capital**	**298**	Reference EU CC2, line 54
45	**Tier 1 capital (T1 = CET1 + AT1)**	**3,072**	Reference EU CC2, line 55
Tier 2 (T2) capital: instruments			
46	Capital instruments and the related share premium accounts	446	Reference EU CC2, line 56
47	Amount of qualifying items referred to in Article 484 (5) CRR and the related share premium accounts subject to phase out from T2 as described in Article 486(4) CRR	-	
EU-47a	Amount of qualifying items referred to in Article 494a (2) CRR subject to phase out from T2	-	
EU-47b	Amount of qualifying items referred to in Article 494b (2) CRR subject to phase out from T2	-	
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	-	
49	thereof: instruments issued by subsidiaries subject to phase out	-	
50	Credit risk adjustments	-	Reference EU CC2, line 57
51	**Tier 2 (T2) capital before regulatory adjustments**	**446**	Reference EU CC2, line 58
Tier 2 (T2) capital: regulatory adjustments			
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-	
53	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
54	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
55	Direct, indirect and synthetic holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	-	
EU-56a	Qualifying eligible liabilities deductions that exceed the eligible liabilities items of the institution (negative amount)	-	
EU-56b	Other regulatory adjustments to T2 capital	-	
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**0**	Reference EU CC2, line 60
58	**Tier 2 (T2) capital**	**446**	Reference EU CC2, line 61
59	**Total capital (TC = T1 + T2)**	**3,518**	Reference EU CC2, line 62
60	**Total Risk exposure amount**	**17,297**	

All figures in € million, unless otherwise stated		(a) 30.06.2023	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
61	**Common Equity Tier 1 (as a percentage of total risk exposure amount)**	**16.04%**	
62	**Tier 1 (as a percentage of total risk exposure amount)**	**17.76%**	
63	**Total capital (as a percentage of total risk exposure amount)**	**20.34%**	
64	Institution CET1 overall capital requirement (CET1 requirement in accordance with Article 92 (1) CRR, plus additional CET1 requirement which the institution is required to hold in accordance with point (a) of Article 104(1) CRD, plus combined buffer requirement in accordance with Article 128(6) CRD) expressed as a percentage of risk exposure amount)	9.03%	
65	thereof: capital conservation buffer requirement	2.50%	
66	thereof: countercyclical buffer requirement	0.55%	
67	thereof: systemic risk buffer requirement	0.07%	
EU-67a	thereof: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	-	
EU-67b	thereof: additional own funds requirements to address the risks other than the risk of excessive leverage	1.41%	
68	**Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)**	**9.84%**	
Amounts below the thresholds for deduction (before risk weighting)			
72	Direct and indirect holdings of own funds and eligible liabilities of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	-	
75	Deferred tax assets arising from temporary differences (amount below 17,65% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met)	105	
Applicable caps on the inclusion of provisions in Tier 2			
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	-	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	27	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	-	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	84	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)			
80	Current cap on CET1 instruments subject to phase out arrangements	-	
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-	
82	Current cap on AT1 instruments subject to phase out arrangements	-	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	
84	Current cap on T2 instruments subject to phase out arrangements	-	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	

[1] After confirmation of the 2022 financial statements and the appropriation of profits.
For regulatory purposes, excluding consolidated profit (net income) generated during the period from 1 January to 30 June 2023.

Tier 1 capital

Regulatory Tier 1 capital pursuant to Article 25 of the CRR consists of Common Equity Tier 1 (CET1) capital and Additional Tier 1 (AT1) capital. It is based on reported equity in accordance with IFRS of € 3,342 million, including regulatory adjustments.

Common Equity Tier 1 capital

The conditions for Common Equity Tier 1 capital pursuant to Articles 26 to 50 of the CRR apply as at the disclosure date.

pbb's subscribed capital (share capital) continued to amount to around € 380 million (EU CC1, line 1a) as at 30 June 2023, and is composed of 134,475,308 registered ordinary bearer shares in the form of no-par value shares with a notional interest in the subscribed capital (share capital) of around € 2.83 per no-par value share. As in the previous year, pbb did not hold any treasury shares in the first half of 2023.

In addition to subscribed capital (share capital), Common Equity Tier 1 capital consists of additional paid-in capital of € 1,637 million (line 1b), retained earnings of € 1,089 million (lines 2 and EU-5a), and accumulated other comprehensive income of € -113 million (line 3). In June 2023, pbb repurchased the 28.57% stake held by Caisse des Dépôts et Consignations (CDC) in CAPVERIANT GmbH, which added € 2 million to the Bank's retained earnings. The consolidated profit generated during the period from 1 January to 30 June 2023 (€ +69 million) and the AT1 capital coupon payment made in April 2023 (€ -17 million) are not included in retained earnings or CET1. The Common Equity Tier 1 capital before regulatory adjustments amounts to € 2,992 million (line 6).

The Common Equity Tier 1 capital before regulatory adjustments of € 2,992 million is subject to various regulatory adjustments defined in the CRR, with a total of € 218 million being deducted (line 28):

> The value adjustments based on the requirements for the prudent valuation of assets recognised at fair value in the amount of € 5 million are deducted from CET1 in full (line 7).

  When calculating its own funds, pbb Group takes into account the requirements for a prudent valuation of assets recognised at fair value in accordance with Article 34 of the CRR in conjunction with Article 105 of the CRR. pbb Group uses the simplified approach to determine these additional valuation adjustments. Institutions may apply this approach if the sum of the absolute value of fair-valued assets and liabilities, as stated in the institution's financial statements, less the offsetting options, is less than the threshold value of € 15 billion. For pbb Group, this figure amounted to € 4.4 billion as at the disclosure date in accordance with pbb's consolidated financial statements (IFRS).

> Intangible assets (mainly purchased and internally developed software) totalling € 51 million are deducted from CET1 in the amount of € 42 million (line 8), in accordance with Article 37 of the CRR in conjunction with Article 36 (1) (b) of the CRR.

  An exception to the deduction of intangible assets under Article 36 (1) (b) of the CRR applies to prudently valued software assets that are calculated over a regulatory amortisation period of three years (which may not, however, exceed the amortisation period for accounting purposes). pbb Group applies this provision to prudently valued software assets in the amount of € 9 million.

  The EBA is using this provision in an attempt to strike a balance between two conflicting interests: on the one hand, in the context of digitalisation, it is necessary and desirable for banks to invest in their IT without having to fear a negative impact on their regulatory own funds, while on the other hand, the software used only has a very limited period of use in the event that a bank is liquidated or taken over.

Besides the amortisation period for accounting purposes, which remains unchanged, a shortened regulatory amortisation period not exceeding three years applies. The regulatory amortisation period may not exceed the amortisation period for accounting purposes. As in the statement of financial position, the amortisation period begins when the institution starts using the software. Software that is not yet used by the institution (because it is still being developed) still has to be deducted from CET1 in full. Once the institution has started using the software, only the difference between the amortisation for accounting purposes and the higher regulatory amortisation is to be deducted from CET1 capital. Each software item and each addition must be considered separately.

The software that is not deducted from CET1 is to be allocated to risk-weighted assets and assigned a risk weight of 100%. Under the IRB approach, pbb Group reports these software assets in the exposure class “Other non-credit obligation assets”.

> Deferred tax assets that do not result from temporary differences (after offsetting against deferred tax liabilities) are deducted from CET1 capital in accordance with Article 38 (3) of the CRR in the amount of € 15 million (line 10). Under the credit risk standardised approach, the deferred tax assets of € 105 million resulting from temporary differences are risk-weighted and reported in the “Other items” exposure class.

> The cash flow hedge reserve of € -24 million still included in accumulated other comprehensive income is fully credited to CET1 again, in accordance with Article 33 of the CRR (line 11, € +24 million).

> For banks using the advanced Internal Ratings-Based Approach (IRBA) based on bank-internal rating procedures, if a value adjustment deficit arises from the impairments (stage 1 to stage 3) and provisions recognised in the lending business compared to the expected loss, this must be deducted from CET1 in accordance with Article 159 of the CRR.

The value adjustment deficit as at the end of the first half of 2023 amounted to € 29 million (line 12), whilst pbb had reported a value adjustment excess of € 61 million as at year-end 2022, which was considered in Tier 2 (T2) capital pursuant to Article 62 (d) of the CRR (line 50).

> The item “Other regulatory adjustments” in the amount of € -152 million (EU CC1, line 27a) includes the following deduction items from CET1:

- Obligations from bank levies in the amount of € 48 million. This includes, in particular, expenses for collateral payments for the European bank levy paid to BaFin as the national resolution authority, as well as the payments made to the compensation scheme of German banks (statutory deposit protection scheme) and the deposit protection fund of the Association of German Banks (BdB). The deduction obligation is derived from the ECB’s SREP (Supervisory Review and Evaluation Process) notice.

- An amount of € 39 million for the minimum loss coverage for non-performing exposures (NPL backstop).

  In this context, pbb Group has credit losses of € 34 million resulting in an NPL backstop in accordance with the minimum loss coverage for non-performing exposures under Regulation (EU) 2019/630. Articles 47a et seqq. of the CRR introduced by this Regulation shall apply to defaulted loans and advances granted or increased after 26 April 2019.

  Credit losses that lead to an NPL backstop according to the Addendum of the ECB amount to € 1 million. The ECB Addendum (“Addendum to the ECB Guidance to banks on non-performing loans: supervisory expectations for prudential provisioning of non-performing exposures”) extended the rules, to cover non-performing exposures which were classified as such from 1 April 2018 onwards, meaning that they are not covered by Articles 47a et seqq. of the CRR mentioned above.

In addition to the aforementioned regulations, institutions receive SREP notices from the ECB for their exposures classified as non-performing before 1 April 2018 (legacy portfolio). These contain NPL backstop recommendations in a slightly modified form. The legacy portfolio results in an NPL backstop of € 4 million for pbb Group.

- Additions to impairments (stage 1 to stage 3) and provisions in the lending business of € 28 million.
- Gains and losses from derivative liabilities recognised at fair value resulting from the institution's own credit risk (debt value adjustment, DVA) amounting to € 7 million. The deduction obligation for the DVA is based on Article 33 (1) (c) of the CRR.
- As a precautionary measure, an amount of € 30 million was deducted from CET1 in accordance with Article 3 of the CRR. Article 3 of the CRR allows institutions to make an additional capital deduction beyond the provisions of the CRR. In light of the difficult macroeconomic environment and the tense situation on the real estate markets, pbb made use of this as a precautionary measure.

All in all, pbb Group's Common Equity Tier 1 capital (CET1) amounted to € 2,775 million as at the disclosure date.

Additional Tier 1 capital

In addition to its Common Equity Tier 1 (CET1) capital, pbb Group's Tier 1 capital consists of Additional Tier 1 (AT1) capital, to which the provisions set out in Articles 51 to 61 of the CRR apply.

The Additional Tier 1 (AT1) capital comprises subordinated bearer bonds with a total nominal amount of € 300 million and an initial interest rate of 5.750% p.a. (€ 17 million), which were issued by pbb in April 2018 and are available for an indefinite period without any incentive to redeem. From an accounting perspective, AT1 capital is also classified as equity in accordance with IFRS, since – subject to certain conditions – there is neither an obligation to repay the bonds nor is there an obligation for ongoing debt service (discretionary coupon in principle). It is reported under the liabilities item "Additional equity instruments (AT1)". In the first half of 2023, a coupon payment of € 17 million was made in relation to the AT1 capital. The coupon for the new interest period starting on 28 April 2023 amounts to 8.474% p.a.; as stipulated in the bond terms, it is based on the reference interest rate (the five-year euro mid-market swap rate) applicable as at the reporting date plus 5.383% p.a.

While the bonds have a perpetual maturity, pbb had an ordinary right to call them for the first time as at 28 April 2023, and then every five years. Furthermore, pbb can call the bonds for regulatory and tax reasons, in each case subject to the prior approval of the relevant supervisory authority. The creditors have no ordinary right to call the bonds.

The bond terms also provide for a temporary write-down of the nominal amount if the CET1 ratio falls below the threshold of 7.0%. The threshold of 7.0% relates primarily to pbb Group in accordance with IFRS. This threshold also applies at the level of the individual institution in accordance with the German Commercial Code (HGB) if pbb is no longer exempt from the requirement to determine the regulatory ratios on a single-entity basis. In addition to the above-mentioned contractual write-down right, the responsible resolution authority has the (statutory) option of converting the bonds into pbb shares, or to write down the bonds (bail-in), in the event of a crisis involving pbb – subject to conditions that are more closely defined by law.

The bonds constitute direct, unsecured and subordinated liabilities of pbb that rank *pari passu* with each other, but enjoy priority over pbb's liabilities resulting from Common Equity Tier 1 capital instruments. In the event of resolution measures in relation to pbb, and in the event of pbb's dissolution, liquidation or insolvency, the liabilities arising from the bonds are only serviced once the Tier 2 capital has been repaid.

No regulatory adjustments are made in relation to the Additional Tier 1 capital.

With this issue, pbb Group's Additional Tier 1 (AT1) capital amounts to € 298 million (nominal amount of € 300 million less € 2 million in issue costs.

Tier 2 capital

pbb Group's Tier 2 (T2) capital comprises longer-term subordinated liabilities to which the provisions set out in Articles 62 to 65 apply.

All subordinated liabilities are subject to interest at standard market rates. The issuer is not subject to any early repayment obligations. The liabilities are subordinated to the claims of all other creditors which are not themselves subordinated (in the event of liquidation, or in the event of any other insolvency or other proceedings), but rank senior to both the liquidation claims of the shareholders and the claims associated with the AT1 capital instruments (Additional Tier 1 capital). No subsequent restrictions can be imposed on subordination, maturity, or period of notice. Debtor termination rights are possible, subject to certain contractual requirements. Original maturities are at least 5 years and usually range between 10 and 20 years. The responsible resolution authority has the (statutory) option of converting the Tier 2 capital into pbb shares, or to write down the Tier 2 capital (bail-in), in the event of a crisis involving pbb – subject to conditions that are more closely defined by law.

No regulatory adjustments are made in relation to the Tier 2 capital.

Taking discounts and amortisation into account in accordance with Article 64 of the CRR, Tier 2 (T2) capital amounted to € 446 million as at the disclosure date.

Own funds

pbb Group's regulatory own funds total € 3,518 million (€ -189 million compared to 31 December 2022) and consist of € 2,775 million Common Equity Tier 1 capital (CET1, € -69 million compared to 31 December 2022), € 298 million Additional Tier 1 (AT1) capital, and € 446 million Tier 2 capital (T2, € -120 million compared to 31 December 2022).

The decline in Common Equity Tier 1 capital (CET1) by € 69 million is primarily attributable to an overall increase of capital deductions (regulatory adjustments), amongst other things for bank levies, intangible assets (purchased and internally developed software), and, in particular, for the value adjustment deficit under the IRB approach. This was offset, amongst other things, by the decrease of the deduction for the minimum loss coverage for non-performing exposures (NPL backstop).

The € 120 million reduction in Tier 2 (T2) capital is primarily due to the omission of the value adjustment excess generated under the IRB approach as at year-end 2022. Other factors were the repayments of subordinated liabilities that fell due and the decreases in the recognition of subordinated bonds due to daily amortisation in accordance with Article 64 of the CRR.

Reconciliation of regulatory own funds and reported equity

Pursuant to Article 437 (a) of the CRR, the following table EU CC2 shows the reconciliation of regulatory own funds with pbb's published consolidated statement of financial position as at 30 June 2023, in particular with reported equity (IFRS). The table contains cross-references (column c) to the relevant regulatory own funds item in the EU CC1 table.

pbb Group's reported equity (IFRS) amounted to € 3,342 million at the end of the first half of 2023 (EU CC2, line 29). Further information on the composition of reported equity (IFRS) and its development is set out in pbb Group's Interim Report [as at 30 June] 2023 (published on the Bank's website): in the "Statement of Changes in Equity" (page 35) and in note 27 "Equity" (page 46).

Pursuant to a resolution by the Annual General Meeting on 25 May 2023, pbb paid to its shareholders a dividend of € 0.95 per no-par value share entitled to dividends (a total of € 128 million, see EU CC2, line 37).

EU CC2: Reconciliation of regulatory own funds to balance sheet in the audited financial statements

All figures in € million		a Balance sheet as in published financial statements under regulatory scope of consolidation [1)] 30.06.2023	c Reference
Assets - Breakdown by asset clases according to the balance sheet in the published financial statements			
1	Cash reserve	442	
2	Financial assets at fair value through profit or loss	1,060	
3	Financial assets at fair value through other comprehensive income	1,460	
4	Financial assets at amortised cost after credit loss allowances	46,355	
5	Positive fair values of hedge accounting derivatives	234	
6	Valuation adjustment from portfolio hedge accounting (assets)	-70	
7	Tangible assets	25	
8	Intangible assets	51	
9	Other assets	64	
10	Current income tax assets	25	
11	Deferred income tax assets	120	
12	**Total assets**	**49,766**	
Liabilities - Breakdown by liability clases according to the balance sheet in the published financial statements			
13	Financial liabilities at fair value through profit or loss	708	
14	Financial liabilities measured at amortised cost	44,631	
15	Subordinated liabilities [2)]	602	
16	Negative fair values of hedge accounting derivatives	987	
17	Valuation adjustment from portfolio hedge accounting (liabilities)	-107	
18	Provisions	127	
19	Other liabilities	58	
20	Current income tax liabilities	20	
21	**Liabilities**	**46,424**	
22	Equity attributable to the shareholders of pbb	3,044	
23	Subscribed capital	380	
24	Additional paid-in capital	1,637	
25	Retained earnings	1,140	
26	Accumulated other comprehensive income	-113	
27	Additional equity instruments (AT1) [2)]	298	
28	Non-controlling interests	-	
29	**Equity**	**3,342**	
30	**Total equity and liabilities**	**49,766**	
Shareholders' Equity			
	Common Equity Tier 1 (CET1): Instruments and reserves		
31	Capital instruments and the related share premium accounts	2,017	Reference EU CC1, line 1
32	thereof: subscribed capital	380	Reference EU CC1, line1a
33	thereof: additional paid-in capital	1,637	Reference EU CC1, line 1b
34	Retained earnings	1,089	Reference EU CC1, lines 2 and EU-5a
35	Accumulated other comprehensive income	-113	Reference EU CC1, line 3
36	Independently reviewed interim profits net of any foreseeable charge or dividend	-	Reference EU CC1, line EU-5a
37	Distribution of a dividend (for information purposes) [3)]	128	
38	**Common Equity Tier 1 (CET1) before regulatory adjustments**	**2,992**	Reference EU CC1, line 6
	Common Equity Tier 1 (CET1): regulatory adjustments		
39	Additional value adjustments (negative amount)	-5	Reference EU CC1, line 7
40	Intangible assets (net of related tax liability) (negative amount)	-42	Reference EU CC1, line 8
41	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	-15	Reference EU CC1, line 10

All figures in € million		a **Balance sheet as in published financial statements under regulatory scope of consolidation** [1)] **30.06.2023**	c **Reference**
42	Fair value reserves related to gains or losses on cash flow hedges	24	Reference EU CC1, line 11
43	Negative amounts resulting from the calculation of expected loss amounts	-29	Reference EU CC1, line 12
44	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-	Reference EU CC1, line 14
45	Other regulatory adjustments to CET1 capital	-152	Reference EU CC1, line 27a
46	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-218**	Reference EU CC1, line 28
47	**Common Equity Tier 1 (CET1) capital**	**2,775**	Reference EU CC1, line 29
	Additional Tier 1 (AT1) capital: Instruments and reserves		
48	Capital instruments and the related share premium accounts	298	Reference EU CC1, line 30
49	thereof: classified as equity under applicable accounting standards	298	Reference EU CC1, line 31
50	thereof: classified as liabilities under applicable accounting standards	-	Reference EU CC1, line 32
51	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**298**	Reference EU CC1, line 36
	Additional Tier 1 (AT1) capital: regulatory adjustments		
52	Not applicable at pbb	-	
53	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**0**	Reference EU CC1, line 43
54	**Additional Tier 1 (AT1) capital**	**298**	Reference EU CC1, line 44
55	**Tier 1 capital (T1 = CET1 + AT1)**	**3,072**	Reference EU CC1, line 45
	Tier 2 (T2) capital: Instruments and reserves		
56	Capital instruments and the related share premium accounts	446	Reference EU CC1, line 46
57	Credit risk adjustments	-	Reference EU CC1, line 50
58	**Tier 2 (T2) capital before regulatory adjustments**	**446**	Reference EU CC1, line 51
	Tier 2 (T2) capital: regulatory adjustments		
59	Not applicable at pbb	**-**	
60	**Total regulatory adjustments to Tier 2 (T2) capital**	**0**	Reference EU CC1, line 57
61	**Tier 2 (T2) capital**	**446**	Reference EU CC1, line 58
62	**Total capital (TC = T1 + T2)**	**3,518**	Reference EU CC1, line 59

[1)] There are no differences between the scope of prudential consolidation pursuant to the CRR and the accounting scope of consolidation for the IFRS consolidated financial statements as at the disclosure date. As a result, columns a and b of the EU CC2 template were combined into one column a in accordance with the Pillar 3 framework, Annex 8, no. 9.

[2)] Additional Tier 1 (AT1) capital qualifies as equity for accounting purposes pursuant to IFRS because there is no obligation to repay, or to make debt servicing payments on an ongoing basis. Tier 2 (T2) capital instruments are included under liabilities in the IFRS statement of financial position.

[3)] Pursuant to a resolution by the Annual General Meeting on 25 May 2023, pbb paid to its shareholders a dividend of € 0.95 per no-par value share entitled to dividends (a total of € 128 million).

Own funds and eligible liabilities (Minimum Requirements for Own Funds and Eligible Liabilities Instruments, MREL)

Under the recovery and resolution regime (pursuant to the Bank Recovery and Resolution Directive (BRRD), which was revised within the framework of the EU Banking Package in 2019 and transposed into national law with the German Act on the Recovery and Resolution of Credit Institutions (Sanierungs- und Abwicklungsgesetz – "SAG"), institutions are required to maintain, in addition to regulatory own funds, liabilities that can be converted to equity in an amount as provided for by the MREL ratio. However, there are clear limits to the ability to convert liabilities (the "bail-in capacity"). In particular, the principle applies that no investor may be placed in a less advantageous position than is permitted under normal insolvency proceedings (the principle of "no creditor worse off" – or NCWO). For example, this means that deposits covered by a national deposit guarantee scheme are not eligible for bail-in and thus excluded from conversion.

The supervisory authorities determine the exact level of the MREL ratio individually for each institution concerned. pbb aims to maintain an MREL ratio of at least 8% in relation to total liabilities and own funds (TLOF) in line with the regulatory target set by the resolution authority. At over € 1.6 billion, this requirement was significantly exceeded in the first half of 2023 (31 December 2022: € 1.6 billion).

Information on own funds and eligible liabilities (MREL) pursuant to Article 437a of the CRR and section 51 (3) of the German Act on the Recovery and Resolution of Credit Institutions (Sanierungs- und Abwicklungsgesetz – "SAG") in conjunction with EBA standard EBA/ITS/2020/06 is to be disclosed for the first time as at 31 December 2024.

Optional transitional arrangements pursuant to Article 473a of the CRR

pbb Group continues to refrain from applying the optional transitional arrangements pursuant to Article 473a of the CRR (transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds, period of temporary treatment: 1 January 2020 to 31 December 2024) in conjunction with Amending Regulation (EU) 2020/873 ("CRR Quick Fix"). In previous years, pbb Group also did not make use of the original optional transitional arrangements under Article 473a of the CRR in conjunction with Guidelines EBA/GL/2018/01 for mitigating the impact of the introduction of IFRS 9 as of 1 January 2018.

pbb Group also refrained from applying the relief pursuant to Article 468 of the CRR (temporary treatment of unrealised gains and losses measured at fair value through other comprehensive income, period of temporary treatment: 1 January 2020 to 31 December 2022) which expired as at year-end 2022.

As a result, the own funds, capital ratios and leverage ratio presented in this Disclosure Report represent the full impact of the introduction of IFRS 9 and the expected credit loss impairment model. Consequently, table IFRS 9/Article 468-FL "Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR" in accordance with the Guidelines EBA/GL/2020/12 is not relevant for pbb Group.

Countercyclical capital buffer

This chapter sets out information on the countercyclical capital buffer for pbb Group in accordance with Article 440 of the CRR.

Countercyclical capital buffer

The countercyclical capital buffer (CCyB) pursuant to section 10d of the KWG is considered to be a macroprudential instrument of banking supervision. It is designed, in particular, to counter the risk of excessive credit growth in the banking sector, i.e. in times of excessive credit growth, banks are obliged to create an additional capital buffer (using Common Equity Tier 1 (CET1) capital), increasing their loss-absorbing capacity in the event of a crisis.

Domestic countercyclical capital buffer

Pursuant to section 10d (3) of the KWG, the domestic countercyclical capital buffer (CCyB) is generally allowed to range between 0% and 2.5% of the total risk exposure amount (risk-weighted assets, RWA) and is subject, in Germany, to quarterly checks by the Federal Financial Supervisory Authority (BaFin) to ensure it is appropriate, with adjustments being made if necessary. This involves BaFin assessing the intensity of cyclical systemic risk and calculating an appropriate domestic countercyclical capital buffer.

As at the disclosure date of 30 June 2023, the value for Germany is at 0.75% (31 December 2022: 0%). BaFin had increased the domestic countercyclical capital buffer by 0.75 percentage points with effect from 1 February 2023 as a preventative measure to strengthen the resilience of the German banking system.

Individual institution-specific countercyclical capital buffer

pbb Group is required to determine its own institution-specific countercyclical capital buffer (ICCB). The value of the countercyclical capital buffer relevant for Germany has to be taken into account and applied to the sum of the significant credit exposures in Germany. In addition to the domestic countercyclical capital buffer, foreign countercyclical capital buffers from countries in which pbb Group has receivables also have to be included. The countercyclical capital buffers valid in these countries (EU CCyB1, column m) have to be recognised on a pro rata basis. This means that the institution-specific countercyclical capital buffer for pbb Group is derived from the weighted average of the domestic and foreign capital buffers for those countries in which pbb Group has significant credit exposures vis-à-vis the private sector (table EU CCyB1 below: sum of the weighted own funds requirement per country in accordance with column l, multiplied by the country-specific CCyB in % according to column m).

Capital buffer for systemic risks

pbb has also applied the sector-specific systemic risk buffer of 2.00%, introduced by BaFin in accordance with the “General Administrative Act ordering a capital buffer for systemic risks under section 10e of the KWG” since 1 February 2023. This systemic risk buffer applies to credit exposures secured by domestic residential real estate (i.e. real estate located in Germany), and also serves to counteract the specific risks on the residential real estate market that cannot be fully covered by the domestic countercyclical capital buffer mentioned above.

The risk-weighted exposure amounts (RWA) for these loans secured by domestic residential real estate amount to € 612 million (31 March 2023: € 545 million), resulting in an own funds requirement of € 12 million (i.e. 0.07% of aggregate RWA, cf. EU KM1, line EU 9a). The own funds requirement for the systemic risk buffer and the institution-specific countercyclical capital buffer must be maintained in Common Equity Tier 1 (CET1) capital.

Quantitative information on the countercyclical capital buffer

The following tables pursuant to Article 440 (a) and (b) of the CRR show the amount of pbb Group's individual institution-specific countercyclical capital buffer (EU CCyB2), as well as the geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer (EU CCyB1).

The institution-specific countercyclical capital buffer (ICCB) for pbb Group amounted to 0.55% as at 30 June 2023 (31 December 2022: 0.22%), meaning that it remains well below the applicable maximum ratio of 2.5%.

The 0.33 percentage point ICCB rise was due to increased countercyclical capital buffers in countries in which pbb Group has credit exposures (vis-à-vis the private sector). The competent supervisory authorities increased the country-specific countercyclical capital buffers for Germany (0.75%, +0.75 percentage points compared to 31 December 2022), the Czech Republic (2.50%, +1.0 percentage point compared to 31 December 2022), France (0.50%, +0.5 percentage points compared to 31 December 2022), Ireland (0.50%, +0.5 percentage points compared to 31 December 2022), the Netherlands (1.00%, +1.0 percentage point compared to 31 December 2022) and Sweden (2.0%, +1.0 percentage point compared to 31 December 2022) in the first half of 2023. In addition, the calculation of the ICCB took into account country-specific countercyclical capital buffers of the United Kingdom (1.00%), Luxembourg (0.50%), Romania (0.50%) and Slovakia (1.00%), which were all unchanged compared to 31 December 2022. The domestic countercyclical capital buffers of the other countries in which pbb Group has significant exposures either amount to 0%, or have not been set by the competent supervisory authority.

The own funds requirement of € 95 million (0.55% of the total risk-weighted exposure amounts) is to be maintained in Common Equity Tier 1 (CET1) capital in accordance with section 10d (1) of the KWG. To cover this, and to cover the own funds requirement for the capital conservation buffer (CCoB) of 2.5%, pbb Group has € 1,997 million in Common Equity Tier 1 capital available after complying with the Common Equity Tier 1 capital ratio of 4.5% of total risk exposure.

EU CCyB2: Amount of institution-specific countercyclical capital buffer

All figures in € million, unless otherwise stated		a
1	Total risk exposure amount [1)]	17.297
2	Institution-specific countercyclical capital buffer rate (%)	0.55
3	Institution-specific countercyclical capital buffer requirement [2)]	95

[1)] Total risk-weighted exposure amounts (risk-weighted assets, RWA) in accordance with EU OV1, column (a).
[2)] Own funds requirement for ICCB, calculated by multiplying line 1 and line 2.

The following country-specific countercyclical capital buffers from countries in which pbb Group has receivables (vis-à-vis the private sector) are scheduled to be increased in the second half of 2023: Ireland (+0.5 percentage points, to 1.00%), Slovakia (+0.5 percentage points, to 1.50%) and Romania (+0.5 percentage points, to 1.00%).

EU CCyB1: Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

			a	b	c	d	e	f	g	h	i	j	k	l	m
			General credit exposures		Relevant credit exposures – Market risk		Securitisation exposures Exposure value for non-trading book	Total exposure value 1)	Own fund requirements				Risk-weighted exposure amounts 2)	Own fund requirements weights 3) (%)	Countercyclical buffer rate 4) (%)
All figures in € million, unless otherwise stated			Exposure value under the standardised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models			Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total			
10	**Breakdown by country 5)**														
1	(AT)	Austria	418	301	-	-	-	719	13	-	-	13	157	1.04	0.00
2	(AW)	Aruba	18	-	-	-	-	18	-	-	-	-	-	-	-
3	(BD)	Bangladesh	21	-	-	-	-	21	-	-	-	-	1	0.01	-
4	(BE)	Belgium	92	19	-	-	-	111	-	-	-	-	6	0.04	0.00
5	(BM)	Bermuda	16	-	-	-	-	17	-	-	-	-	-	0.00	-
6	(CH)	Switzerland	20	137	-	-	-	158	6	-	-	6	81	0.54	0.00
7	(CZ)	Czech Republic	-	382	-	-	-	382	22	-	-	22	277	1.84	2.50
8	(DE)	Germany	451	13,344	-	-	-	13,795	182	-	-	182	2,278	15.14	0.75
9	(ES)	Spain	386	434	-	-	-	820	31	-	-	31	393	2.61	0.00
10	(FI)	Finland	-	285		-	-	285	15	-	-	15	193	1.28	0.00
11	(FR)	France	405	3,718	-	-	-	4,123	219	-	-	219	2,743	18.23	0.50
12	(GB)	United Kingdom	1	2,477	-	-	-	2,478	132	-	-	132	1,653	10.99	1.00
13	(GH)	Ghana	31	-	-	-	-	31	-	-	-	-	3	0.02	-
14	(HU)	Hungary	-	149	-	-	-	149	7	-	-	7	91	0.61	0.00
15	(IE)	Ireland	85	-	-	-	-	85	-	-	-	-	-	-	0.50
16	(IT)	Italy	-	114	-	-	-	114	5	-	-	5	57	0.38	0.00
17	(JE)	Jersey	26	1	-	-	-	27	2	-	-	2	27	0.18	-
18	(KY)	Cayman Islands	28	-	-	-	-	28	-	-	-	-	-	-	-
19	(LI)	Liechtenstein	-	5	-	-	-	5	-	-	-	-	-	0.00	0.00
20	(LU)	Luxembourg	128	213	-	-	-	341	14	-	-	14	176	1.17	0.50

			a	b	c	d	e	f	g	h	i	j	k	l	m
			General credit exposures		**Relevant credit exposures – Market risk**		**Securitisation exposures Exposure value for non-trading book**	**Total exposure value [1)]**	**Own fund requirements**				**Risk-weighted exposure amounts [2)]**	**Own fund requirements weights [3)] (%)**	**Countercyclical buffer rate [4)] (%)**
All figures in € million, unless otherwise stated			**Exposure value under the standardised approach**	**Exposure value under the IRB approach**	**Sum of long and short positions of trading book exposures for SA**	**Value of trading book exposures for internal models**			**Relevant credit risk exposures - Credit risk**	**Relevant credit exposures – Market risk**	**Relevant credit exposures – Securitisation positions in the non-trading book**	**Total**			
10	**Breakdown by country [5)]**														
21	(NL)	Netherlands	55	1,178	-	-	-	1,178	57	-	-	57	717	4.76	1.00
22	(OM)	Oman	49	-	-	-	-	49	-	-	-	-	-	-	-
23	(PL)	Poland	-	1,889	-	-	-	1,889	112	-	-	112	13,999	9.31	0.00
24	(RO)	Romania	-	135	-	-	-	135	6	-	-	6	78	0.52	0.50
25	(SA)	Saudi Arabia	8	-	-	-	-	8	-	-	-	-	-	0.00	0.00
26	(SE)	Sweden	-	1,044	-	-	-	1,044	78	-	-	78	976	6.49	2.00
27	(SI)	Slovenia	-	64	-	-	-	64	3	-	-	3	35	0.23	0.00
28	(SK)	Slovakia	-	105	-	-	-	105	4	-	-	4	49	0.33	1.00
29	(US)	United States of America	384	4,741	-	-	-	5,125	292	-	-	292	3,651	24.27	0.00
20	**Total**		**2,568**	**30,734**	**0**	**0**	**0**	**33,302**	**1,204**	**0**	**0**	**1,204**	**15,044**	**100.00**	—

1) Exposure value (exposure at default, EaD) calculated as the sum of the EaD amounts in columns a to e.

2) Risk-weighted exposure amounts (risk-weighted assets, RWA).

3) The weighting applied to the countercyclical capital buffer ratio in each country, calculated as the sum of the own funds requirements in that country (column j) divided by the sum of all own funds requirements (column j, line 020).

4) Country-specific countercyclical capital buffer (CCyB) rates pursuant to the European Systemic Risk Board (ESRB) / Bank for International Settlements (BIS).

5) Country: location of the debtor, i.e. the debtor's place of habitual residence or the location of the assets (real estate) in cases involving specialised lending.

Own funds requirements and RWA

This chapter shows information on own funds requirements and risk-weighted exposure amounts (risk-weighted assets, RWA) for pbb Group in accordance with Article 438 of the CRR. As the parent company of a group of institutions within the meaning of section 10a of the KWG in conjunction with Articles 11 et seqq. of the CRR, pbb is responsible for complying with the own funds requirements on a combined basis (regulatory scope of consolidation).

Methods for determining the own funds requirement

pbb Group applies the provisions set out in the CRR, meaning that it is subject to the disclosure requirements of Part 8 of the CRR. Both the minimum amount of own funds and the calculation of own funds requirements are based on the CRR/CRD regulations. In order to comply with the own funds requirements, default risk (credit risk, counterparty credit risk, including CVA risk), market risk, operational risk and settlement risk must all be backed with capital. The regulatory ratios are calculated based on the IFRS accounting standards.

Credit risk (excluding counterparty credit risk)

When calculating the own funds requirements for credit risk, pbb Group uses the advanced IRB approach based on Bank-internal rating procedures in accordance with Articles 142 et seqq. of the CRR, as well as the standardised approach in accordance with Articles 111 et seqq. of the CRR.

As far as its participating interests are concerned, pbb Group applies the simple IRBA risk weight for equity exposures in accordance with Article 155 (2) of the CRR. By contrast, pbb Group does not apply the simple IRBA risk weight for specialised lending pursuant to Article 153 (5) of the CRR.

Like in the previous disclosure period, pbb Group did not have any exposures from securitisation in its portfolio as at the disclosure date. There are currently no plans for any new securitisation of pbb's own receivables. Nor does pbb Group's business strategy currently define new securitisation transactions as a corporate objective.

Counterparty credit risk

pbb Group applies the standardised approach (SA-CCR) in accordance with Articles 274 et seqq. of the CRR to calculate the own funds requirements for counterparty credit risk pursuant to Part 3, Title II, Chapter 6 of the CRR (i.e. for derivative transactions). pbb does not currently use any proprietary internal models (IMM).

pbb Group uses the standardised approach in accordance with Article 384 of the CRR to calculate the additional own funds requirement for OTC derivatives for credit valuation adjustment risk (CVA risk) pursuant to Part 3, Title VI of the CRR.

As far as securities financing transactions (securities lending/repo transactions) are concerned, pbb Group applies the provisions for credit risk mitigation in accordance with Chapter 4 of the CRR, namely the Financial Collateral Comprehensive Method in accordance with Articles 223 et seqq. of the CRR.

pbb Group applies the risk-sensitive approach in accordance with Article 308 of the CRR to calculate the own funds requirements for contributions to the default fund of a qualifying central counterparty.

Market risk

Capital backing for market risk pursuant to Part 3, Title IV of the CRR is calculated using the standardised approach in accordance with Articles 325 et seqq. of the CRR at pbb Group. pbb does not currently use any proprietary internal models (IMA).

Operational risk

pbb Group calculates capital backing for operational risk pursuant to Part 3, Title III of the CRR using the standardised approach in accordance with Articles 317 et seqq. of the CRR. pbb does not currently use any proprietary internal models.

Settlement risk

The own funds requirements for settlement risk and risks associated with free deliveries pursuant to Part 3, Title V of the CRR are calculated based on the rules set out in Articles 378 and 379 of the CRR.

Quantitative information on own funds requirements and RWA

Table EU OV1 in accordance with Article 438 (d) of the CRR shows the risk-weighted exposure amounts (RWA) and corresponding total own funds requirements, broken down by risk type pursuant to Part 3 of the CRR.

Table EU CR10.5 in accordance with Article 438 (e) of the CRR also shows the risk-weighted exposure amounts (risk-weighted assets), the minimum own funds requirement and other information for equity exposures for which the simple IRBA risk weight is used. As far as its participating interests are concerned, pbb Group applies the simple IRBA risk weight for equity exposures in accordance with Article 155 (2) of the CRR.

By contrast, pbb Group does not apply the simple IRBA risk weight for specialised lending pursuant to Article 153 (5) of the CRR. Tables EU CR10.1 to EU CR10.4 in accordance with Article 438 (e) of the CRR are therefore not relevant for pbb Group.

EU CR10.5: Equity exposures under the simple risk-weighted approach

	a	b	c	d	e	f
Categories All figures in € million, unless otherwise stated	**On-balance sheet exposure [1]**	**Off-balance sheet exposure [1]**	**Risk weight [2]**	**Exposure value [3]**	**Risk weighted exposure amount [4]**	**Expected loss amount [5]**
Private equity exposures	-	-	190%	-	-	-
Exchange-traded equity exposures	-	-	290%	-	-	-
Other equity exposures	0.05	-	370%	0.05	0.2	-
Total	**0.05**	**0**		**0.05**	**0.2**	**0**

[1] Carrying values in financial statements (nominal value for off-balance sheet items).
[2] Simple risk weight for equity exposures.
[3] Exposure value (exposure at default, EaD).
[4] Risk-weighted exposure amount (risk-weighted assets, RWA).
[5] Expected loss (EL).

EU OV1: Overview of risk-weighted exposure amounts

All figures in € million		a Risk weighted exposure amounts (RWA) [1] 30.06.2023	b Risk weighted exposure amounts (RWA) [1] 31.03.2023	c Total own funds requirements 30.06.2023
1	**Credit risk (excluding CCR)**	**16,000**	**15,735**	**1,280**
2	thereof: the standardised approach	1,980	1,987	158
3	thereof: the foundation IRB (FIRB) approach	-	-	-
4	thereof: slotting approach	-	-	-
EU 4a	thereof: equities under the simple risk-weighted approach	0.2	0.1	0.02
5	thereof: the advanced IRB (AIRB) approach	14,020	13,748	1,122
6	**Counterparty credit risk**	**324**	**380**	**26**
7	thereof: the standardised approach [2]	115	120	9
8	thereof: internal model method (IMM)	-	-	-
EU 8a	thereof: exposures to a CCP [3]	2	2	0.1
EU 8b	thereof: credit valuation adjustment - CVA	143	158	11
9	thereof: other CCR [4]	64	101	5
15	**Settlement risk**	**0**	**0**	**0**
16	**Securitisation exposures in the non-trading book (after the cap)**	**0**	**0**	**0**
17	thereof: SEC-IRBA approach	-	-	-
18	thereof: SEC-ERBA (including IAA)	-	-	-
19	thereof: SEC-SA approach	-	-	-
EU 19a	thereof: 1,250% / deduction	-	-	-
20	**Position, foreign exchange and commodities risks (Market risk)**	**14**	**14**	**1**
21	thereof: the standardised approach	14	14	1
22	thereof: IMA	-	-	-
EU 22a	**Large exposures [5]**	**0**	**0**	**0**
23	**Operational risk**	**959**	**959**	**77**
EU 23a	thereof: basic indicator approach	-	-	-
EU 23b	thereof: standardised approach	959	959	77
EU 23c	thereof: advanced measurement approach	-	-	-
24	Amounts below the thresholds for deduction (subject to 250% risk weight) (For information) [6]	264	264	21
29	**Total**	**17,297**	**17,089**	**1,384**

[1] Risk-weighted exposure amounts (risk-weighted assets, RWA).
[2] Exposures calculated pursuant to Part 3, Title II, Chapter 6 of the CRR (derivative transactions).
[3] Exposures for contributions to the default fund of a central counterparty (Eurex Clearing).
[4] Exposures for securities financing transactions (securities lending/repo transactions).
[5] pbb Group does not maintain a trading book for securities or derivatives portfolios held to realise short-term gains.
[6] Deferred tax assets dependant on future profitability (not) resulting from temporary differences.
The disclosure in this line is for information purposes only; the amount is already included in line 1 (credit risk).

Risk-weighted exposure amounts (RWA)

As at 30 June 2023, pbb Group's risk-weighted exposure amounts (RWA) across all risk types amounted to € 17,297 million (31 March 2023: € 17,089 million); this corresponds to an increase of € 208 million in the second quarter of 2023.

RWA amounts increased as far as credit risk is concerned (€ +265 million compared to 31 March 2023 under the IRB and standardised approach), since new business generated in the Commercial Real Estate Finance segment during the second quarter of 2023 significantly exceeded regular and early repayments. This was offset by various effects such as individual PD (probability of default) rating improvements, which in turn offset an increase in loss given default (LGD) of individual transactions resulting from lower property market values, and netting effects related to extensions of real estate financings and changes in the allocation of exposures to exposure classes (corporates versus small and medium-sized enterprises, SMEs).

Counterparty credit risk (€ -56 million compared to 31 March 2023) decreased as a result of a lower securities financing transaction volume (repo and reverse repo transactions: € -37 million compared to 31 March 2023) and as a result of a lower volume of derivatives (€ -5 million compared to 31 March 2023) and lower CVA risk for OTC derivatives (€ -15 million compared to 31 March 2023).

At € 14 million, market risk remained stable compared to 31 March 2023.

Operational risk remained unchanged compared to 31 March 2023; the regulatory own funds requirement is calculated once a year as at year-end.

Own funds requirements

The minimum own funds requirement for the above-mentioned risk types remained unchanged as at 30 June 2023, at 8% of RWA, amounting to a total of € 1,384 million (31 March 2023: € 1,367 million) as at the disclosure date. Given the nature of pbb Group's business model, which focuses on Commercial Real Estate Finance, 94% of the own funds requirement is attributable to default risks (credit risk and counterparty credit risk, including CVA risk), with less than 1% attributable to market risks and around 6% to operational risks.

The overall capital requirement – including the capital conservation buffer (CCoB) of 2.5%, the institution-specific countercyclical capital buffer (ICCB) of 0.55%, the sector-specific systemic risk buffer of 0.07%, and the Pillar 2 capital requirement (P2R) of 2.5% – is 13.62% (EU KM1, line EU 11a). As at the disclosure date, it amounted to a total of € 2,356 million (31 March 2023: € 2,293 million).

Surplus own funds

The surplus own funds (own funds available less the minimum own funds requirement pursuant to EU OV1) amounted to € 2,134 million as at the disclosure date (31 March 2023: € 2,283 million).

Capital ratios

The information in this chapter on regulatory minimum capital ratios and regulatory minimum SREP capital requirements complements the information in the "Own funds" chapter (Article 437 of the CRR).

Regulatory minimum capital ratios

The Capital Requirements Regulation (CRR), together with the Capital Requirements Directive (CRD), forms the basis for calculating regulatory capital and minimum capital ratios. According to the regulations set out therein, the Common Equity Tier 1 (CET1) ratio (Common Equity Tier 1 divided by risk-weighted assets) must not fall below 4.5% in 2023, the Tier 1 (T1) capital ratio (Tier 1 divided by risk-weighted assets) must not fall below 6.0%, and the own funds ratio (own funds divided by risk-weighted assets) must not fall below 8.0%.

As the parent company of a group of institutions within the meaning of section 10a of the KWG in conjunction with Articles 11 et seqq. of the CRR, pbb is responsible for complying with the capital ratios on a combined basis. The requirements for the regulatory capital ratios were met at all times in the first half of 2023. As at 30 June 2023, the capital ratios are (EU CC1, lines 61 to 63):

- CET1 ratio: 16.0% (31 December 2022: 16.7%)
- Tier 1 ratio: 17.8% (31 December 2022: 18.5%)
- Own funds ratio: 20.3% (31 December 2022: 21.8%).

The decline in capital ratios compared to year-end 2022 was attributable to an increase in risk-weighted exposure amounts (RWA: € +280 million compared to 31 December 2022) combined with the simultaneous decrease in regulatory own funds during this period (€ -189 million compared to 31 December 2022).

Disclosure in accordance with Article 437 (f) of the CRR is not relevant for pbb Group, as pbb applies the provisions set out in the CRR.

SREP

pbb Group also complied with the minimum capital requirements of the ECB's SREP, which extend beyond the existing regulatory requirements, at all times during the first half of 2023.

The aim of the SREP is to conduct a comprehensive analysis of the institutions supervised by the ECB. This includes an assessment of the business model, risk and corporate governance, the risk situation, as well as capital and liquidity resources. Based on the results of the analysis and benchmark comparisons, the ECB can opt to impose requirements on the institution's minimum capital or liquidity resources that extend beyond the existing supervisory requirements.

Minimum CET1 ratio

The Pillar 2 capital requirement (P2R) for pbb Group – based on the final Basel III requirements – effective since 1 January 2023, remains unchanged year-on-year, at 2.5%. In accordance with Article 104a of the CRD (and section 6c of the KWG, respectively), the P2R has to be maintained in the form of CET1 capital of around 1.4% (56.25% of the P2R) and in the form of Tier 1 capital of around 1.9% (75.00% of P2R). The minimum CET1 ratio from SREP capital requirement thus amounts to 8.4% and comprises the Pillar 1 minimum capital requirement of 4.5%, the capital conservation buffer of 2.5% and the Pillar 2 capital requirement (CET1) of 1.4%.

The applicable CET1 minimum capital requirement also represents the threshold for mandatory calculation of a so-called maximum distributable amount (MDA). This generally limits distributions to the CET1 capital, new performance-based remuneration, and interest payments on Additional Tier 1 (AT1) capital.

Overall capital requirement

Apart from the minimum CET1 ratio, pbb Group has to fulfil an overall capital requirement of 13.0% in 2023 which remains unchanged year-on-year. It is also based on the final Basel III requirements and comprises the Pillar 1 minimum own funds requirement of 8.0%, the capital conservation buffer of 2.5% and the Pillar 2 capital requirement (P2R) of 2.5%.

The institution-specific countercyclical capital buffer of 0.55% and the capital buffer for systemic risks of 0.07% are not taken into account. These capital buffers would increase the overall capital requirement to 13.52%.

Leverage ratio

This chapter sets out the information on the leverage ratio for pbb Group in accordance with Article 451 of the CRR, as well as on monitoring and managing the risk of excessive leverage.

In accordance with Article 429 (2) of the CRR, the leverage ratio, a capital requirement that is not risk-based, is calculated as an institution's capital measure (the Tier 1 capital) divided by that institution's total exposure measure, and is expressed as a percentage. This figure is not risk-sensitive and complements the risk-based perspective of the own funds requirements and capital ratios. It aims to limit the increase in leverage in the banking sector, to mitigate the risk of debt accumulating with a destabilising impact on the financial system and the economy as a whole, and to complement the risk-based requirements with a simple safety mechanism that is not risk-based.

Institutions are required to maintain a leverage ratio of at least 3% at all times in accordance with Article 92 (1) of the CRR. pbb Group met this requirement at all times during the first half of 2023.

Total exposure measure

The CRR forms the basis for calculating the total exposure measure of the leverage ratio. Calculation is generally based on the carrying value in the financial statements as the relevant measure of assets. Specific regulatory metrics apply to derivatives and securities financing transactions (securities lending/repo transactions). The total exposure measure also takes off-balance sheet exposures into account.

Derivatives

The exposure values of the leverage ratio for derivatives are calculated on the basis of the regulatory standardised approach (SA-CCR). The exposure values according to the standardised approach take into account a number of factors including margin agreements, collateral and maturities of the derivative transactions, the minimum transfer amount, the current replacement cost, netting and a general factor of 1.4.

Securities financing transactions

The exposure values of the leverage ratio for securities financing transactions (securities lending/repo transactions) include the gross receivables from securities financing transactions that are offset against liabilities from securities financing transactions vis-à-vis the same counterparty, provided that certain conditions are met. In addition to the gross receivables from securities financing transactions, a premium for the counterparty credit risk from securities financing transactions is included.

On-balance sheet exposures

The exposure values of the leverage ratio for other items of the statement of financial position (excluding derivatives and securities financing transactions) include the carrying value of the items in question in the financial statements, as well as regulatory adjustments for items that are deducted when calculating regulatory Tier 1 capital.

Off-balance sheet exposures

The exposure values of the leverage ratio for off-balance sheet exposures take into account the credit conversion factors (CCF) from the credit risk standardised approach of 0%, 20%, 50% or 100% depending on the risk category, subject to a floor of 10%.

Quantitative information on the leverage ratio

The following tables EU LR1-LRSum, EU LR2-LRCom and EU LR3-LRSpl pursuant to Article 451 (1) (a) to (c) of the CRR and Article 451 (3) of the CRR show a breakdown of the total exposure measure, a reconciliation of this measure with the assets in pbb's published consolidated statement of financial position, and the leverage ratio for pbb Group.

The leverage ratio for pbb Group (EU LR2-LRCom, line 25) amounted to 6.3% as at 30 June 2023 (31 December 2022: 5.9%), therefore remaining significantly above the minimum requirement. The 0.4 percentage point increase was primarily due to the material decrease in the total exposure measure (€ -4,825 million compared to 31 December 2022), mainly as a result of the decreased exposures from securities financing transactions.

The ECB did not impose additional own funds requirements (as a percentage of the total exposure measure) on pbb to address the risk of excessive leverage in accordance with Article 104 (1) (a) of the CRD (Pillar 2 requirement, P2R: 0%).

EU LR1 - LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

		a
All figures in € million		Applicable amount
1	**Total assets as per published financial statements [1]**	**49,766**
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation [2]	-
3	(Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	-
4	(Adjustment for temporary exemption of exposures to central bank (if applicable))	-
5	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with point (i) of point (i) of Article 429a(1) CRR)	-
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	-
7	Adjustment for eligible cash pooling transactions	-
8	Adjustments for derivative financial instruments [3]	-435
9	Adjustment for securities financing transactions (SFTs) [4]	-1,460.0
10	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures) [5]	1,166
11	(Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)	-
EU-11a	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)	-
EU-11b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (j) of Article 429a(1) CRR)	-
12	Other adjustments [6]	-443
13	**Leverage ratio total exposure measure**	**48,594**

[1] Line 1: Total assets reported in pbb's consolidated financial statements (IFRS).
[2] Line 2: The scope of prudential consolidation and the accounting scope of consolidation for pbb's consolidated financial statements (IFRS) are identical as at the disclosure date.
[3] Line 8: Difference between the carrying value (IFRS) of the derivatives in the financial statements and the exposure value (EaD).
[4] Line 9: Difference between the carrying value (IFRS) of the securities financing transactions (securities lending/repo transactions) in the financial statements and the regulatory exposure value (EaD).
[5] Line 10: Addition of off-balance sheet exposures after taking into account the credit conversion factor (CCF) based on the credit risk standardised approach.
[6] Line 12: Other adjustments mainly include cash collateral furnished by pbb in the derivatives business.

EU LR2 - LRCom: Leverage ratio common disclosure

All figures in € million, unless otherwise stated		a CRR leverage ratio exposures 30.06.2023	b CRR leverage ratio exposures 31.12.2022
On-balance sheet exposures (excluding derivatives and SFTs)			
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	47,504	48,604
2	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-	-
3	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-1,213	-1,374
4	(Adjustment for securities received under securities financing transactions that are recognised as an asset)	-	-
5	(General credit risk adjustments to on-balance sheet items)	-	-
6	(Asset amounts deducted in determining Tier 1 capital)	-124	-96
7	**Total on-balance sheet exposures (excluding derivatives and SFTs)**	**46,166**	**47,135**
Derivative exposures			
8	Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	68	80
EU-8a	Derogation for derivatives: replacement costs contribution under the simplified standardised approach	-	-
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	287	278
EU-9a	Derogation for derivatives: Potential future exposure contribution under the simplified standardised approach	-	-
EU-9b	Exposure determined under Original Exposure Method	-	-
10	(Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	-	-
EU-10a	(Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	-	-
EU-10b	(Exempted CCP leg of client-cleared trade exposures) (Original exposure method)	-	-
11	Adjusted effective notional amount of written credit derivatives	-	-
12	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-	-
13	**Total derivatives exposures**	**354**	**359**
Securities financing transaction (SFT) exposures			
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	2,368	4,244
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-1,565	-
16	Counterparty credit risk exposure for SFT assets	105	120
EU-16a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429e(5) and 222 CRR	-	-
17	Agent transaction exposures	-	-
EU-17a	(Exempted CCP leg of client-cleared SFT exposure)	-	-
18	**Total securities financing transaction exposures**	**907**	**4,365**
Other off-balance sheet exposures			
19	Off-balance sheet exposures at gross notional amount	2,267	3,012
20	(Adjustments for conversion to credit equivalent amounts)	-1,101	-1,451
21	(General provisions associated with off-balance sheet exposures deducted in determining Tier 1 capital)	-	-
22	**Off-balance sheet exposures**	**1,166**	**1,561**
Excluded exposures			
EU-22a	(Exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)	-	-
EU-22b	(Exposures exempted in accordance with point (j) of Article 429a (1) CRR (on and off balance sheet))	-	-
EU-22c	(Excluded exposures of public development banks (or units) - Public sector investments)	-	-
EU-22d	(Excluded exposures of public development banks (or units) - Promotional loans)	-	-
EU-22e	(Excluded passing-through promotional loan exposures by non-public development banks (or units))	-	-
EU-22f	(Excluded guaranteed parts of exposures arising from export credits)	-	-

All figures in € million, unless otherwise stated		a CRR leverage ratio exposures 30.06.2023	b CRR leverage ratio exposures 31.12.2022
EU-22g	(Excluded excess collateral deposited at triparty agents)	-	-
EU-22h	(Excluded CSD related services of CSD/institutions in accordance with point (o) of Article 429a(1) CRR)	-	-
EU-22i	(Excluded CSD related services of designated institutions in accordance with point (p) of Article 429a(1) CRR)	-	-
EU-22j	(Reduction of the exposure value of pre-financing or intermediate loans)	-	-
EU-22k	**(Total exempted exposures)**	**0**	**0**
Capital and total exposure measure			
23	**Tier 1 capital**	**3,072**	**3,141**
24	**Leverage ratio total exposure measure**	**48,594**	**53,419**
Leverage ratio			
25	**Leverage ratio**	**6.3**	**5.9**
EU-25	Leverage ratio (excluding the impact of the exemption of public sector investments and promotional loans) (%)	6.3	5.9
25a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves)	6.3	5.9
26	Regulatory minimum leverage ratio requirement (%)	3.0	3.0
EU-26a	Additional own funds requirements to address the risk of excessive leverage (%) [1]	-	-
EU-26b	thereof: to be made up of CET1 capital	-	-
27	Leverage ratio buffer requirement (%)	-	-
EU-27a	Overall leverage ratio requirement (%) [2]	3.0	3.0
Choice on transitional arrangements and relevant exposures			
EU-27b	Choice on transitional arrangements for the definition of the capital measure	fully imple-mented	fully imple-mented
Disclosure of mean values			
28	Mean of daily values of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivable 6)	2,526	4,882
29	Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables 6)	802	4,244
30	Total exposures (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	50,318	54,056
30a	Total exposures (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	50,318	54,056
31	Leverage ratio (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables) (%)	6.1	5.8
31a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables) (%)	6.1	5.8

[1] Line EU-26a: Additional own funds requirement imposed by the competent authority (ECB) to contain the risk of excessive leverage.
[2] Line EU-27a: Sum of lines 26 and EU-26a. Line 27 only applies to G-SIIs, meaning that it is not relevant for pbb.

EU LR3 - LRSpl: Split of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

All figures in € million		a CRR leverage ratio exposures
EU-1	**Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:**	**46,290**
EU-2	Trading book exposures [1]	-
EU-3	Banking book exposures, thereof:	46,290
EU-4	Covered bonds	313
EU-5	Exposures treated as sovereigns	11,173
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	2,373
EU-7	Institutions	918
EU-8	Secured by mortgages of immovable properties	28,530
EU-9	Retail exposures	-
EU-10	Corporate	1,797
EU-11	Exposures in default	807
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	379

[1] pbb Group does not maintain a trading book for securities or derivatives portfolios held to realise short-term gains.

Procedures to monitor the risk of excessive leverage

In line with its business structure and model, as well as its business and risk strategy, pbb Group has implemented formal rules and procedures to assess the risk of excessive leverage. In particular, as part of the recovery plan (pursuant to the German Act on the Recovery and Resolution of Credit Institutions (Sanierungs- und Abwicklungsgesetz – “SAG”)), pbb Group has defined a set of selected indicators tailored to reflect its business and risk situation, allowing it to identify and implement suitable courses of action in a timely manner. In addition to the leverage ratio and capital ratios, these indicators include liquidity indicators (including asset encumbrance and medium- and longer-term refinancing requirements (NSFR)), profitability and portfolio quality indicators, as well as market-based and macroeconomic indicators.

The leverage ratio is calculated on a monthly basis and, like the other indicators, forms a key component of pbb Group’s risk management system. The leverage ratio and the other indicators are assigned an early warning threshold and a recovery threshold so that any shortfall can be pinpointed at an early stage. In the event that the early warning threshold is undercut, pbb Group will be able to take appropriate countermeasures in a timely manner. The status of all indicators is monitored on a regular basis and reported to the Management Board, the Supervisory Board and the banking supervisor. Ongoing monitoring of the leverage ratio includes both its numerator (Tier 1 capital) and denominator (the total exposure measure). pbb’s Management Board is provided with information on the leverage ratio on a monthly basis within the scope of the Flash Report, and on a quarterly basis within the scope of the Management Report and the Recovery Plan Report. In addition, the leverage ratio is covered by pbb Group’s capital and multi-year planning.

Credit risk (counterparty credit risk)

Credit risk (credit risk, counterparty credit risk including CVA risk) generally refers to the risk of an unexpected default or decline in the market value of a receivable (loan or bond) or of a derivative (alternatively, of an entire portfolio of receivables or derivatives) resulting from a deterioration of the collateral value or the deterioration of a country's or counterparty's credit quality. The default risk includes the risk of non-payment, migration risk, realisation risk for clients in default, transfer and conversion risk, tenant risk, settlement risk, extension risk as well as concentration risk, as defined in pbb Group's risk strategy.

Credit risk

This chapter provides the information required by Article 442 of the CRR pertaining to credit risk, in particular for loans and advances, securities/debt securities and off-balance sheet exposures, their credit quality and credit risk adjustments. It takes into account exposures for which pbb Group calculates the risk-weighted exposure amounts according to the advanced IRB approach (IRBA), based on Bank-internal rating procedures, as well as those exposure whose risk-weighted exposure amounts are calculated according to the standardised approach (CRSA).

Counterparty credit risk exposures (derivatives and securities financing transactions) are excluded, as are securitisations that will be presented separately in the following chapters "Counterparty credit risk" and "Securitisations".

Credit portfolio

Tables EU CR1, EU CR1-A and EU CR2 pursuant to Article 442 (c), (f), (g) of the CRR show the information on performing as well as non-performing/defaulted credit exposures, impairments recognised and provisions set up in the lending business as well as collateral and financial guarantees received, by financial asset and by counterparty.

On-balance sheet and off-balance sheet credit exposures

The gross carrying amount of on-balance sheet and off-balance sheet credit exposures was € 51,475 million as at 30 June 2023 (31 December 2022: € 55,482 million), including cash balances with central banks and other demand deposits (EU CR1, line 005). From this amount of roughly € 51.5 billion, € 41,190 million was attributable to loans and advances; debt securities contributed € 5,909 million, and an amount of € 2,315 million related to off-balance sheet exposures such as loan commitments and financial guarantees.

All in all, on-balance sheet and off-balance sheet credit exposures declined in the first half of 2023 (€ -4,007 million compared to 31 December 2022). For more information on the development of the respective assets, please refer to pbb Group's Interim Report [as at 30 June] 2023 (published on the Bank's website), e.g. to the note "Development in Assets" (page 12).

Non-performing exposures

Non-performing loans and advances stood at € 1,202 million as at the disclosure date (31 December 2022: € 833 million), based on gross carrying amounts, representing an increase of € 369 million during the first half of 2023.

The Commercial Real Estate Finance (REF) segment saw exposures transferred to recovery (EU CR2, line 020), most of which had previously been in the watchlist status. A loan repayment, and loans returned to normal handling, had an offsetting effect.

Stage 3 impairments recognised for the € 1,202 million of non-performing loans and advances amounted to € 224 million, with collateral and financial guarantees received for this exposure standing at € 942 million.

NPL ratio

pbb Group's non-performing exposure (NPE) ratio based on gross carrying amounts was 2.4% as at 30 June 2023, up 0.8 percentage points compared to 31 December 2022, and its non-performing loan (NPL) ratio, which only includes receivables (loans and advances), but no debt securities or off-balance sheet exposures, rose by 1.0 percentage points compared to 31 December 2022, reaching 2.9%. In accordance with Article 8 no. 4 of the Pillar 3 framework, these ratios are calculated excluding loans and advances held for sale, cash balances with central banks and other demand deposits.

EU CR1: Performing and non-performing exposures and related provisions

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
		Gross carrying amount/nominal amount [1]						**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**						**Accumu-lated partial write-off**	**Collateral and financial guarantees received [2]**	
		Performing exposures			**Non-performing exposures**			**Performing exposures – accumulated impairment and provisions**			**Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**				**On performing exposures**	**On non-performing exposures**
All figures in € million			**thereof: stage 1**	**thereof: stage 2**		**thereof: stage 2**	**thereof: stage 3**		**thereof: stage 1**	**thereof: stage 2**		**thereof: stage 2**	**thereof: stage 3**			
005	Cash balances at central banks and other demand deposits	1,341	1,341	-	-	-	-	-	-	-	-	-	-	-	-	-
010	**Loans and advances**	**40,708**	**32,685**	**7,639**	**1,202**	**109**	**1,088**	**-170**	**-56**	**-114**	**-227**	**-2**	**-224**	**0**	**29,671**	**942**
020	Central banks [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030	General governments	7,482	7,335	13	-	-	-	-1	-1	-	-	-	-	-	64	-
040	Credit institutions	2,903	2,903	-	-	-	-	-	-	-	-	-	-	-	547	-
050	Other financial corporations	1,220	898	322	-	-	-	-4	-	-3	-	-	-	-	1,177	-
060	Non-financial corporations	29,099	21,546	7,303	1,201	109	1,087	-166	-55	-111	-227	-2	-224	-	27,879	941
070	thereof: SMEs	9,351	7,188	2,057	96	-	96	-39	-18	-21	-1	-	-1	-	9,199	96
080	Households	4	4	-	1	-	1	-	-	-	-	-	-	-	4	1
090	**Debt securities**	**5,909**	**5,778**	**11**	**0**	**0**	**0**	**-1**	**-1**	**0**	**0**	**0**	**0**	**0**	**958**	**0**
100	Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
110	General governments	4,357	4,265	11	-	-	-	-1	-1	-	-	-	-	-	452	-
120	Credit institutions	1,525	1,487	-	-	-	-	-	-	-	-	-	-	-	506	-
130	Other financial corporations	28	26	-	-	-	-	-	-	-	-	-	-	-	-	-
140	Non-financial corporations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150	**Off-balance-sheet exposures**	**2,301**	**1,856**	**396**	**14**	**0**	**12**	**-12**	**-7**	**-5**	**0**	**0**	**0**	—	**2,037**	**12**
160	Central banks	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-
170	General governments	128	80	-	-	-	-	-	-	-	-	-	-	—	-	-
180	Credit institutions	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-
190	Other financial corporations	11	11	-	-	-	-	-	-	-	-	-	-	—	11	-
200	Non-financial corporations	2,162	1,766	396	14	-	12	-12	-7	-5	-	-	-	—	2,026	12
210	Households	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-
220	**Total [4]**	**50,259**	**41,660**	**8,046**	**1,216**	**109**	**1,100**	**-183**	**-64**	**-119**	**-227**	**-2**	**-224**	**0**	**32,666**	**954**

[1] Gross carrying amount (nominal value for off-balance sheet exposures) before impairments on financial assets and provisions in the lending business, but after amortisation, before application of credit risk mitigation techniques and before credit conversion factors (CCF).
[2] The value of stated collateral and guarantees is limited to the carrying amount (nominal value for off-balance sheet exposures) of the secured/guaranteed exposures.
[3] Classification of a counterparty in line with the FINREP breakdown into sectors is based on the direct counterparty (e.g. direct borrower, counterparty or securities issuer). In the case of exposures entered into jointly by several debtors, classification is based on the relevant or decisive borrower.
[4] Including “Cash balances at central banks and other demand deposits” reported in line 005.

EU CR1-A: Maturity of exposures

		a	b	c	d	e	f
		Net exposure value [1]					
All figures in € million		**On demand [2]**	**<= 1 year**	**> 1 year <= 5 years**	**> 5 years**	**No stated maturity [3]**	**Total**
010	Loans and advances [4]	915	10,425	18,820	11,354	-	41,513
020	Debt securities	-	935	2,405	2,566	3	5,908
030	**Total**	**915**	**11,360**	**21,225**	**13,919**	**3**	**47,421**

[1] Net exposure value: gross carrying amount after impairments on financial assets and amortisation, but before application of credit risk mitigation techniques. EU CR1-A does not include off-balance sheet items.
[2] The counterparty can choose when the exposure will be redeemed (e.g. short-term receivables).
[3] The exposure, for reasons other than the counterparty being able to choose the redemption date, has no fixed residual maturity.
[4] The Pillar 3 framework, Annex XVI, excludes loans and advances held for sale, cash balances with central banks and other demand deposits.

EU CR2: Changes in the stock of non-performing loans and advances

		a
All figures in € million		**Gross carrying amount [1]**
010	**Initial stock of non-performing loans and advances [2]**	**833**
020	Inflows to non-performing portfolios [3]	427
030	Outflows from non-performing portfolios [4]	-66
040	Outflows due to write-offs	-
050	Outflow due to other situations [5]	9
060	**Final stock of non-performing loans and advances [6]**	**1,202**

[1] Gross carrying amount (nominal value for off-balance sheet exposures) of defaulted on-balance and off-balance sheet exposures before impairments on financial assets and provisions in the lending business, but after amortisation, before application of credit risk mitigation techniques and before credit conversion factors (CCF).
[2] Stock of defaulted loans and advances as at the end of the last financial year.
[3] Loans and advances that defaulted in the course of the disclosure period.
[4] Loans and advances classified as “not defaulted” as at the disclosure date, i.e. that are no longer considered defaulted/non-performing.
[5] Adjustment item from transfers to recovery management during the disclosure period, reduced by liquidations/restructurings as well as repayments/redemptions.
[6] Stock of non-performing loans and advances as at the disclosure date.

Credit quality

The following tables EU CQ1, EU CQ4 and EU CQ5 pursuant to Article 442 (c) and (e) of the CRR provide information on the credit quality of on-balance sheet and off-balance sheet credit exposures. This includes information on forborne (restructured) exposures and the related non-performing or defaulted exposures and related credit risk adjustments. In addition, the tables provide information on collateral and financial guarantees received as well as breakdowns by counterparty, geography (country) and sector (NACE code).

As at the disclosure date, pbb Group reported an unchanged NPL ratio (gross carrying amount of non-performing loans and advances divided by the gross carrying amount of performing and non-performing loans and advances) of below 5%. In line with the Pillar 3 framework, disclosure of tables EU CR2a, EU CQ2, EU CQ6 and EU CQ8 pursuant to Article 442 (c) of the CRR is therefore not relevant. pbb Group performs regular reviews as to whether additional disclosure requirements apply if the 5% threshold has been exceeded.

Disclosure of table EU CQ7 “Collateral obtained by taking possession and execution processes” pursuant to Article 442 (c) of the CRR is not relevant for pbb Group either. EU CQ7 provides an overview of the foreclosures performed by the institution by taking possession of non-performing exposures. pbb Group did not hold any foreclosures or other seized collateral as at 30 June 2023.

Defaulted and non-defaulted exposures

The gross carrying amounts of on-balance sheet (loans and advances, debt securities, cash balances at central banks and other demand deposits) and off-balance sheet credit exposures (such as irrevocable loan commitments) totalled € 51,475 million as at the disclosure date.

Performing exposures accounted for € 50,259 million or 97.6%, the defaulted on-balance sheet and off-balance sheet credit exposures for € 1,100 million. Level 3 impairments of € 224 million have already been recognised for these defaulted loans and advances, whilst the collateral and financial guarantees received amount to € 954 million.

According to the IRB approach and the standardised approach, credit exposures are considered “defaulted” if a borrower has defaulted within the meaning of Article 178 of the CRR, or if another contractual or regulatory trigger applies. For instance, pbb Group considers it a default if a borrower is in material payment arrears or has material overdrafts for more than 90 days, or if it is unlikely that the borrower will meet their payment obligations in full. The credit exposures of a borrower which meet one or more default criteria are assigned a probability of default (PD) class with a probability of default of 100%.

IFRS 9 uses the same definition of default as is used as for regulatory purposes.

“Non-defaulted” exposures are receivables not considered defaulted pursuant to Article 178 of the CRR, meaning that none of the default events mentioned therein have occurred.

Non-performing exposures

All exposures that are considered defaulted within the meaning of Article 178 of the CRR are also viewed as “non-performing” by pbb Group. Therefore, the aforementioned defaulted exposures in the amount of € 1,100 million are also deemed “non-performing” exposures.

An exposure is considered “non-performing” if one of the following criteria is met: it is a material exposure that is past due for more than 90 days, or it is an exposure for which it is considered unlikely that the borrower will meet their payment obligations in full without realising collateral, regardless of whether payments are already overdue and regardless of the number of days of default, if any.

This classification as “non-performing” is carried out regardless of whether the exposure is classified as “defaulted” for regulatory purposes within the meaning of Article 178 of the CRR, or as “impaired” for accounting purposes within the meaning of the applicable IFRS accounting standards.

Impaired exposures

An exposure is considered “impaired” if stage 3 impairments were recognised in line with the accounting framework applied by pbb Group, the International Financial Reporting Standards (IFRS). As at 30 June 2023, the recognised stage 3 impairments amounted to € 224 million (€ +13 million compared to 31 December 2022), and the gross carrying amount of impaired exposures (loans and advances) was € 1,088 million. The additions to stage 3 impairments mainly related to two office property financing transactions in the US.

All exposures for which a (stage 3) impairment was identified in accordance with the IFRS accounting standards are also viewed as “non-performing” by pbb Group.

The rules and methods for impairments as per IFRS 9 are described in the Disclosure Report as at 31 December 2022 (chapter “Credit risk”, section “Credit risk adjustments”, pages 100 et seqq.).

Past-due exposures

A classification of an exposure as “past due” – both for accounting and regulatory purposes – is carried out for past-due exposures if the debtor fails to make contractually-agreed interest and principal payments when due.

The exposures that were partially or fully past due as at the disclosure date amounted to a total of € 1,499 million (gross carrying amount), of which the exposures past due (and non-performing) for more than 90 days amounted to € 573 million.

Forborne (restructured) exposures

On-balance sheet and off-balance sheet credit exposures with forbearance measures amounted to a total of € 2,650 million (gross carrying amount) as at the disclosure date, of which € 1,996 million qualifies as performing and € 655 million as non-performing loans. Impairments of € 196 million have been recognised for the non-performing, forborne exposures. Collateral and financial guarantees for exposures with forbearance measures amount to € 2,403 million, of which € 440 million accounts for non-performing, forborne exposures.

Exposures associated with a high risk of default are restructured by pbb Group should the borrower face financial difficulties – if a positive going-concern forecast has been made for the respective credit exposure. This restructuring process is based on an amendment to the underlying contractual relationship via unilateral or mutual declaration(s) of intent. Restructuring agreements aim to increase pbb Group’s opportunities to realise outstanding exposures, or at least reduce the exposure’s default risk, and usually comprise standstill agreements, extended loan terms, changed interest payment/repayment dates, or the suspension of contractual agreements, such as financial covenants, thus enabling borrowers to meet their contractual payment obligations again. pbb Group’s Credit Risk Management units are responsible for managing the default risk of restructured loans.

Write-offs

pbb Group wrote off financial assets in the amount of € 24 million the first half of 2023.

A financial asset might need to be written off under use of already recognised impairments, should a recovery not be feasible according to reasonable expectations. This applies in particular if it is probable that a residual claim will remain following realisation of collateral, and no further contributions are expected from the debtor (for example due to bankruptcy or lack of assets). In justified exceptions, pbb Group does attempt to collect (at least part of) the residual claim for the written-off exposures by means of enforcement measures.

EU CQ1: Credit quality of forborne exposures

		a	b	c	d	e	f	g	h
		Gross carrying amount/nominal amount of exposures with forbearance measures [1]				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures [2]	
		Performing forborne [3]	Non-performing forborne [3]			On performing forborne exposures	On non-performing forborne exposures		thereof: collateral and financial guarantees received on non-performing exposures with forbearance measures
All figures in € million				thereof: defaulted	thereof: impaired				
005	Cash balances at central banks and other demand deposits	-	-	-	-	-	-	-	-
010	**Loans and advances**	**1,936**	**653**	**539**	**539**	**-26**	**-196**	**2,344**	**439**
020	Central banks	-	-	-	-	-	-	-	-
030	General governments	-	-	-	-	-	-	-	-
040	Credit institutions	-	-	-	-	-	-	-	-
050	Other financial corporations	24	-	-	-	-	-	24	-
060	Non-financial corporations	1,912	653	539	539	-26	-196	2,321	439
070	Households	-	-	-	-	-	-	-	-
080	**Debt Securities**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
090	**Loan commitments given**	**60**	**2**	**0**	**0**	**-1**	**0**	**59**	**2**
100	**Total**	**1,996**	**655**	**539**	**539**	**-26**	**-196**	**2,403**	**440**

[1] Gross carrying amount (nominal value for loan commitments given) before impairments on financial assets and provisions in the lending business, but after amortisation, before application of credit risk mitigation techniques and before credit conversion factors (CCF).
[2] The value of stated collateral and guarantees is limited to the carrying amount (nominal value for loan commitments given) of the secured/guaranteed forborne exposures.
[3] Exposures with forbearance measures under Article 47b of the CRR can be defined as performing or non-performing, depending on whether they fulfil the conditions laid down in Article 47a of the CRR “Non-performing exposures”.

EU CQ4: Credit quality of non-performing exposures by geography

			a	b	c	d	e	f	g
			Gross carrying/nominal amount [1]				Accumulated impairment	Provisions on off-balance-sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on non-performing exposures [3]
				thereof: non-performing		thereof: subject to impairment [2]			
All figures in € million					thereof: defaulted				
010	**On-balance-sheet exposures [4]**		**47,819**	**1,202**	**1,088**	**47,316**	**-398**	**——**	**0**
1	(AT)	Austria	4,632	-	-	4,630	-1	——	-
2	(DE)	Germany	13,930	34	34	13,641	-27	——	-
3	(ES)	Spain	2,368	-	-	2,368	-2	——	-
4	(FR)	France	7,098	58	58	7,087	-13	——	-
5	(GB)	United Kingdom	1,140	126	126	1,101	-88	——	-
6	(IT)	Italy	2,361	14	14	2,282	-12	——	-
7	(JE)	Jersey	740	110	110	740	-43	——	-
8	(LU)	Luxemburg	3,475	100	100	3,472	-85	——	-
9	(NL)	Netherlands	1,221	40	40	1,221	-2	——	-
10	(PL)	Poland	1,867	58	58	1,867	-8	——	-
11	(SE)	Sweden	1,057	-	-	1,057	-2	——	-
12	(US)	United States of America	4,692	612	498	4,648	-109	——	-
13		Other countries [5]	3,239	51	51	3,202	-5	——	-
020	**Off-balance-sheet exposures [4]**		**2,315**	**14**	**12**	——	——	**-12**	——
1	(AT)	Austria 3)	27	-	-	——	——	-9	——
2	(DE)	Germany	1,436	-	-	——	——	-	——
3	(FR)	France	281	-	-	——	——	-1	——
4	(JE)	Jersey	24	-	-	——	——	-	——
5	(LU)	Luxemburg	139	-	-	——	——	-	——
6	(SE)	Sweden	57	-	-	——	——	-	——
7	(US)	United States of America	304	14	12	——	——	-1	——
8		Other countries [6]	48	-	-	——	——	-	——
030	**Total**		**50,135**	**1,216**	**1,100**	**47,316**	**-398**	**-12**	**0**

[1] Gross carrying amount (nominal value for off-balance sheet exposures) before impairments on financial assets and provisions in the lending business, but after amortisation, before application of credit risk mitigation techniques and before credit conversion factors (CCF).
[2] Impairment in line with the three impairment stages as defined in IFRS 9.
[3] Accumulated negative changes to the fair value due to credit risk; an impairment of the fair value is implied for financial assets at fair value through profit or loss.
[4] Regional allocation of exposures to a country is based on the direct counterparty's (e.g. direct borrower, counterparty or securities issuer) country of domicile.
[5] On-balance sheet credit exposures: for reasons of materiality and pursuant to the Pillar 3 framework, Annex XVI, pbb refrains from reporting all countries individually.
The line "Other countries" summarises countries which account for an on-balance sheet credit exposure of less than 1% each: Aruba, Bangladesh, Belgium, Bermuda, Cameroon, Cayman Islands, Czech Republic, Finland, Guernsey, Ghana, Ireland, Japan, Liechtenstein, Latvia, Mauritius, Oman, Portugal, Romania, Saudi Arabia, Slovenia, Slovakia, Switzerland and the British Virgin Islands.
The "Other countries" line also comprises exposures to supranational organisations which are not allocated to the institution's country of domicile, but to this category, in line with the Pillar 3 framework, Annex XVI.
[6] Off-balance sheet exposures: for reasons of materiality and pursuant to the Pillar 3 framework, Annex XVI, pbb refrains from reporting all countries individually.
The "Other countries" line summarises countries which account for an off-balance sheet credit exposure of less than 1% each: Finland, Italy, Netherlands, Poland, Spain and the United Kingdom.

EU CQ5: Credit quality of loans and advances to non-financial corporations by industry

All figures in € million		a	b	c	d	e	f
		Gross carrying amount [1]				Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
			thereof: non-performing		thereof: loans and advances subject to impairment		
				thereof: defaulted			
010	Agriculture, forestry and fishing [2] [3]	-	-	-	-	-	-
020	Mining and quarrying	-	-	-	-	-	-
030	Manufacturing	49	-	-	49	-	-
040	Electricity, gas, steam and air conditioning supply	33	-	-	33	-	-
050	Water supply	133	-	-	133	-	-
060	Construction	336	-	-	336	-	-
070	Wholesale and retail trade	102	-	-	102	-	-
080	Transport and storage	60	22	22	60	-2	-
090	Accommodation and food service activities	134	-	-	95	-1	-
100	Information and communication	-	-	-	-	-	-
110	Financial and insurance actvities	-	-	-	-	-	-
120	Real estate activities	28,717	1,179	1,065	28,506	-389	-
130	Professional, scientific and technical activities	102	-	-	102	-	-
140	Administrative and support service activities	87	-	-	87	-	-
150	Public administration and defense, compulsory social security	-	-	-	-	-	-
160	Education	69	-	-	69	-	-
170	Human health services and social work activities	477	-	-	477	-	-
180	Arts, entertainment and recreation	-	-	-	-	-	-
190	Other services	2	-	-	2	-	-
200	**Total**	**30,300**	**1,201**	**1,087**	**30,050**	**-393**	**0**

[1] Gross carrying amount (nominal value for off-balance sheet exposures) before impairments on financial assets and provisions in the lending business, but after amortisation, before application of credit risk mitigation techniques and before credit conversion factors (CCF).

[2] Classification according to the counterparty's NACE code is based on the main business activity of the direct counterparty (e.g. the direct borrower, counterparty or securities issuer) or that of the most relevant or significant borrower. The NACE codes are in line with the NACE Regulation: statistical classification of economic activities in the European Community.

[3] A counterparty classification considers only those counterparties within sectors in connection with non-financial corporations. As per Implementing Regulation (EU) 2021/451, Annex V, the FINREP sector "Non-financial corporations" comprises all corporations and quasi-corporations not engaged in financial intermediation but principally in the production of market goods and the provision of non-financial services.

Credit risk mitigation techniques

This chapter provides information pursuant to Article 453 of the CRR on credit risk mitigation techniques used at pbb Group to offset credit risk (resulting from loans and advances, debt securities and off-balance sheet exposures) and counterparty credit risk (resulting from derivatives and securities financing transactions), including information on the types of collateral used.

The main aspects of the provisions and procedures applicable to the valuation and management of this eligible collateral as well as for the netting used by pbb Group for regulatory purposes are described in the Disclosure Report as at 31 December 2022 (chapter "Credit risk mitigation techniques", sections "Valuation and management of eligible collateral" and "On-balance sheet and off-balance sheet netting", pages 104 et seqq.).

Main collateral used within credit risk mitigation

pbb Group's core business is commercial real estate finance (Real Estate Finance, REF), with a focus on business eligible for inclusion in Pfandbrief cover. To minimise default risk (credit risk, counterparty credit risk), pbb Group takes into account the following main types of collateral:

- Real estate (property liens)
- Guarantees and indemnities
- Financial collateral

Property liens (real estate) for real estate financings are especially important. pbb Group also accepts guarantees, indemnities and financial collateral (mainly cash collateral, partly securities). Financial collateral is used as collateral in netting agreements for derivatives and securities financing transactions (securities lending/repo transactions).

pbb Group did not execute hedging transactions with credit derivatives (purchased or sold credit collateral) during the first half of 2023, neither as protection buyer nor protection seller.

pbb's guarantors are mainly financial institutions and public-sector clients with very good creditworthiness. Within the scope of risk reporting, Risk Management & Control (RMC) informs pbb's Management Board about the largest guarantors on a regular basis.

Using collateral to reduce capital requirements

Physical collateral (real estate) is taken into account as credit risk mitigating in the loss given default (LGD) calculation when assessing the expected rate of loss in the event of default. Financial collateral is taken into account as credit risk mitigating when determining exposure values (exposure at default (EaD)). Guarantees are taken into account as credit risk mitigating by way of a regular PD substitution, meaning that the lower risk weight of the guarantor is allocated to the hedged part of an exposure. Besides property liens, collateral provided for financings also includes assignments of rental payments as well as insurance benefits which, however, are not taken into account for credit risk mitigation purposes in accordance with the CRR.

Internal pbb Group processing guidelines for each type of collateral set out the procedures for accepting collateral. The Bank usually employs standardised contractual stipulations to ensure legal enforceability, which are reviewed on an ongoing basis due to the ever-changing legal environment. A Group-wide process has been established, aiming to ensure that any CRR-relevant collateral is continuously subject to legal monitoring. Calculation and determination of collateral values is documented in a transparent manner. Expert opinions used to assess a liquidation value include statements concerning marketability of the collateral.

Quantitative information on credit risk mitigation

Table EU CR3 below provides information on credit exposures secured by eligible collateral based on the net carrying amount (broken down into loans and advances, including cash balances at central banks and demand deposits, as well as debt securities), for which pbb Group calculates risk-weighted exposure amounts in line with the advanced IRB approach (IRBA), based on Bank-internal rating procedures, or the standardised approach (CRSA).

Pursuant to Article 453 (g), (h) and (i) of the CRR, table EU CR4 shows the impact of eligible collateral for exposures under the standardised approach (CRSA; chapter “Credit risk – standardised approach”), whilst table EU CR7-A outlines the impact for exposures under the IRB approach (chapter “Credit risk – IRB approach”) pursuant to Article 453 (g) of the CRR.

Table EU CR7 pursuant to Article 453 (j) of the CRR regarding the impact of credit derivatives used as a credit risk mitigation technique bears no relevance for pbb Group since its portfolio did not comprise credit derivatives as at the disclosure date.

EU CR3: Credit risk mitigation techniques – overview

		a	b	c	d	e
		Unsecured net carrying amount [3]	**Secured net carrying amount [1) 2)]**			
				thereof: secured by collateral [4]	**thereof: secured by financial guarantees**	
All figures in € million						**thereof: secured by credit derivatives**
1	Loans and advances	12,241	30,613	29,269	1,344	-
2	Debt securities	4,950	958	-	958	—
3	**Total**	**17,191**	**31,571**	**29,269**	**2,302**	**-**
4	thereof: non-performing exposures	33	942	923	19	-
5	thereof: defaulted	26	780	—	—	—

[1] EU CR3 shows the net value of exposures: gross carrying amount after impairments on financial assets and amortisation, but before application of credit risk mitigation techniques. Off-balance sheet exposures are not taken into account.

[2] Exposures to which at least one credit risk mitigation mechanism is allocated pursuant to Part 3, Title II, Chapter 4 of the CRR. This relates to guarantees which may be considered as having risk-mitigating effects when calculating own funds requirements for the lending business. The value of reported guarantees is limited to the net value of secured/guaranteed exposures.

[3] Exposures to which no credit risk mitigation technique has been applied, for which collateral has not been pledged and guarantees have not been received. “Loans and advances” also comprises central bank deposits and receivables vis-à-vis banks due on demand.

[4] Exposures secured by collateral (predominantly real estate/property liens).

Credit risk – standardised approach

This chapter provides information pursuant to Articles 444 (e) and 453 (g), (h) and (i) of the CRR concerning on-balance sheet and off-balance sheet credit exposures, for which pbb Group calculates risk-weighted exposure amounts in line with the standardised approach (CRSA). pbb Group makes use of this approach pursuant to Articles 111 et seqq. of the CRR in addition to the advanced IRB approach (IRBA) based on Bank-internal rating procedures pursuant to Articles 142 et seqq. of the CRR – for the portfolios outlined below.

Application of permanent partial use within the meaning of Article 150 of the CRR

pbb Group uses the standardised approach mainly for the following sub-portfolios:

> Exposures to central governments or central banks, regional governments and public-sector entities pursuant to Article 150 (1) (a) and (d) of the CRR
> Exposures to institutions as referred to in Article 150 (1) (b) of the CRR (including Eurex Clearing)
> Exposures to companies generating the majority of their revenues outside the real estate sector
> Exposures to private individuals
> Default risk exposures regarding a discontinued business unit within the meaning of Article 150 (1) (c) of the CRR in conjunction with section 14 of the German Solvency Regulation (Solvenzverordnung – "SolvV") (e.g. low-volume retail loans; the client's creditworthiness is assessed via retail scoring)
> Other default risk exposures for which no rating procedure pursuant to the IRB approach as approved by the banking supervisor is applied

Effects of credit risk mitigation

The standardised approach takes guarantees into account as credit risk mitigation by way of a regular PD substitution, meaning that the lower risk weight of the guarantor is allocated to the hedged part of an exposure. This in turn means that the secured part of an IRBA exposure (e.g. of a company) is reported with the lower risk weight of the guarantor (e.g. of a public-law corporation) in the standardised approach, or that guaranteed CRSA exposures are allocated to the lower risk weight and exposure class of the protection seller. pbb's guarantors are mainly financial institutions and public-sector clients. pbb Group treats credit exposures to public-sector clients and financial institutions using the standardised approach.

Quantitative information on credit exposures under the standardised approach

The following tables EU CR4 and EU CR5 pursuant to Articles 444 (e) and 453 (g), (h) and (i) of the CRR provide information on exposure values (before and after credit risk mitigation) and risk-weighted exposure amounts (RWA), risk weights and RWA density, as well as on the implications of credit conversion factors (CCF) applied, and of eligible collateral for on-balance sheet and off-balance sheet CRSA credit exposures, broken down by exposure classes.

EU CR4: Standardised approach – Credit risk exposure and credit risk mitigation effects

	Exposure classes	a	b	c	d	e	f
		Exposures before CCF and before CRM [1]		Exposures post CCF and post CRM [2]		RWAs and RWAs density	
All figures in € million, unless otherwise stated		On-balance-sheet exposures	Off-balance-sheet exposures	On-balance-sheet exposures	Off-balance-sheet amount	RWAs [3]	RWAs density [4] (%)
1	Central governments or central banks	6,953	-	8,445	-	48	0.57
2	Regional government or local authorities	4,220	80	4,800	40	399	8.24
3	Public sector entities	1,700	-	1,570	-	99	6.28
4	Multilateral development banks	416	-	416	-	-	-
5	International organisations	153	-	153	-	-	-
6	Institutions	918	-	20	-	7	36.10
7	Corporates	1,720	7	725	4	721	98.84
8	Retail	-	-	-	-	-	-
9	Secured by mortgages on immovable property	488	38	488	19	168	33.16
10	Exposures in default	21	-	1	-	1	115.20
11	Exposures associated with particularly high risk	104	66	104	36	209	150.00
12	Covered bonds	313	-	313	-	31	10.00
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
14	Collective investment undertakings	3	-	3	-	32	1,250.00
15	Equity	-	-	-	-	-	-
16	Other items [5]	106	-	106	-	264	250.00
17	**Total**	**17,113**	**191**	**17,142**	**99**	**1,980**	**11.48**

[1] Net value of CRSA exposures: gross carrying amount after impairments/provisions and amortisation, but before application of credit risk mitigation techniques and credit conversion factors (CCF).
[2] CRSA exposure values (exposure at default, EaD) after impairments/provisions and amortisation, and after application of credit risk mitigation techniques and credit conversion factors (CCF).
[3] Risk-weighted CRSA exposure amounts (risk-weighted assets, RWA).
[4] RWA density (%): calculated by dividing the RWA per CRSA exposure class (column e) by the respective EaD (columns c + d).
[5] Deferred tax assets dependant on future profitability (not) resulting from temporary differences.

EU CR5: Standardised approach

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
	Exposure classes	**Risk weight**															**Total**	**Of which unrated [2]**
All figures in € million		**0%**	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1250%**	**Others**		
1	Central governments or central banks	8,210	-	-	-	234	-	-	-	-	1	-	-	-	-	-	8,445	697
2	Regional government or local authorities	2,846	-	-	-	1,994	-	-	-	-	-	-	-	-	-	-	4,840	3,697
3	Public sector entities	1,183	-	-	-	349	-	18	-	-	20	-	-	-	-	-	1,570	1,422
4	Multilateral development banks	416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	416	-
5	International organisations	153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	153	-
6	Institutions	-	-	-	-	9	-	11	-	-	-	-	-	-	-	-	20	-
7	Corporates	-	-	-	-	1	-	-	-	-	726	2	-	-	-	-	730	700
8	Retail exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Exposures secured by mortgages on immovable property	-	-	-	-	-	485	22	-	-	-	-	-	-	-	-	507	507
10	Exposures in default	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1
11	Exposures associated with particularly high risk	-	-	-	-	-	-	-	-	-	-	139	-	-	-	-	139	-
12	Covered bonds	-	-	-	313	-	-	-	-	-	-	-	-	-	-	-	313	-
13	Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Units or shares in collective investment undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	3
15	Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Other items [3]	-	-	-	-	-	-	-	-	-	-	-	106	-	-	-	106	-
17	**Total**	**12,807**	**0**	**0**	**313**	**2,588**	**485**	**51**	**0**	**0**	**748**	**142**	**106**	**0**	**3**	**0**	**17,242**	**7,028**

[1] EU CR5 provides information on the CRSA exposure values (EaD) after impairments/provisions and amortisation, and after application of credit risk mitigation techniques and credit conversion factors (CCF).
[2] A rating by a renowned rating agency (external credit assessment institutions, ECAI) is not available.
[3] Deferred tax assets dependant on future profitability (not) resulting from temporary differences.

Credit risk – IRB approach

This chapter provides information pursuant to Articles 452 and 453 (g) and (j) as well as 438 (h) of the CRR concerning on-balance sheet and off-balance sheet credit exposures, for which pbb Group calculates risk-weighted exposure amounts in line with the advanced IRB approach based on Bank-internal rating procedures pursuant to Articles 142 et seqq. of the CRR.

The PD, LGD and CCF rating systems approved for application under the advanced IRB approach are described in the Disclosure Report as at 31 December 2022 (chapter "Credit risk – IRB approach", section "Approved IRB approaches", pages 111 et seqq.).

Quantitative information on credit exposures under the IRB approach

The following table EU CR6 pursuant to Article 452 (g) of the CRR provides information concerning on-balance sheet and off-balance sheet credit exposures for the portfolios subject to the IRB approach and rated using a rating procedure approved by the supervisory authorities. The table further provides information on key IRBA parameters used for the calculation of own funds requirements. Table EU CR6 only comprises information on pbb Group's significant exposure classes. The "Central governments and central banks", "Institutions" and "Retail exposures" IRBA exposure classes do not apply to pbb Group. As far as its participating interests are concerned, pbb Group applies the simple IRBA risk weight for equity exposures in accordance with Article 155 (2) of the CRR.

Table EU CR7-A pursuant to Article 453 (g) of the CRR outlines the impact of eligible collateral under the IRB approach.

Table EU CR7 pursuant to Article 453 (j) of the CRR regarding the impact of credit derivatives used as a credit risk mitigation technique on risk-weighted exposure amounts (RWA) bears no relevance for pbb Group since its portfolio continues to contain no credit derivatives.

Table EUR CR8 in accordance with Article 438 (h) of the CRR outlines the RWA changes in the second quarter of 2023 and highlights the main reasons for these changes.

EU CR6: IRB approach – Credit risk exposures by exposure class and PD range

All figures in € million, unless otherwise stated

A-IRB	a PD range [1]	b On-balance sheet exposures [2]	c Off-balance-sheet exposures pre-CCF [3]	d Exposure weighted average CCF [4]	e Exposure post CCF and post CRM [5]	f Exposure weighted average PD (%) [6]	g Number of obligors	h Exposure weighted average LGD (%) [7]	i Exposure weighted average maturity (years)	j Risk weighted exposure amount after supporting factors [8]	k Density of risk weighted exposure amount (%) [9]	l Expected loss amount	m Value adjustments and provisions
Corporates - SMEs	0.00 to <0.15	29	-	-	28	0.10	22	5.57	4	1	3.26	-	-
	0.00 to <0.10	1	-	-	1	0.05	2	5.11	1	-	1.10	-	-
	0.10 to <0.15	28	-	-	27	0.10	20	5.58	4	1	3.33	-	-
	0.15 to <0.25	57	-	-	57	0.20	32	2.32	4	1	2.05	-	-
	0.25 to <0.50	1,101	12	0.53	1,106	0.39	77	8.20	4	123	11.08	-	-
	0.50 to <0.75	-	-	-	-	-	-	-	-	-	-	-	-
	0.75 to <2.50	296	38	0.60	318	1.14	23	2.80	4	15	4.59	-	-
	0.75 to <1.75	296	38	0.60	318	1.14	22	2.80	4	15	4.59	-	-
	1.75 to <2.5	-	-	-	-	-	-	-	-	-	-	-	-
	2.50 to <10.00	1	-	-	1	2.72	4	4.28	4	-	8.82	-	-
	2.5 to <5	1	-	-	1	2.72	4	4.28	4	-	8.82	-	-
	5 to <10	-	-	-	-	-	-	-	-	-	-	-	-
	10.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	10 to <20	-	-	-	-	-	-	-	-	-	-	-	-
	20 to <30	-	-	-	-	-	-	-	-	-	-	-	-
	30.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	100.00 (Default)	4	-	-	4	100.00	2	24.73	5	2	62.50	1	1
Subtotal		**1,488**	**49**	**0.58**	**1,514**	**0.79**	**160**	**6.83**	**4**	**142**	**9.36**	**1**	**1**

A-IRB	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range [1]	**On-balance sheet exposures [2]**	**Off-balance-sheet exposures pre-CCF [3]**	**Exposure weighted average CCF [4]**	**Exposure post CCF and post CRM [5]**	**Exposure weighted average PD (%) [6]**	**Number of obligors**	**Exposure weighted average LGD (%) [7]**	**Exposure weighted average maturity (years)**	**Risk weighted exposure amount after supporting factors [8]**	**Density of risk weighted exposure amount (%) [9]**	**Expected loss amount**	**Value adjustments and provisions**
All figures in € million, unless otherwise stated													
Corporates - specialised lending [10]	0.00 to <0.15	256	-	-	256	0.10	5	9.34	4	19	7.53	-	-
	0.00 to <0.10	-	-	-	-	-	-	-	-	-	-	-	-
	0.10 to <0.15	256	-	-	256	0.10	5	9.34	4	19	7.53	-	-
	0.15 to <0.25	657	-	-	657	0.20	19	21.81	3	116	17.61	-	1
	0.25 to <0.50	5,611	62	0.52	5,634	0.39	111	20.53	3	1,460	25.91	5	15
	0.50 to <0.75	-	-	-	-	-	-	-	-	-	-	-	-
	0.75 to <2.50	10,127	323	0.53	10,299	1.39	159	27.20	3	5,561	53.99	40	58
	0.75 to <1.75	8,214	221	0.55	8,335	1.25	133	26.17	3	4,251	51.00	27	42
	1.75 to <2.5	1,913	102	0.50	1,964	2.00	26	31.60	3	1,310	66.70	12	16
	2.50 to <10.00	7,520	1,615	0.72	8,684	4.43	138	24.30	2	5,449	62.75	90	98
	2.5 to <5	4,231	744	0.65	4,715	3.25	77	26.27	2	2,903	61.57	39	49
	5 to <10	3,289	871	0.78	3,969	5.84	61	21.96	2	2,546	64.14	50	49
	10.00 to <100.00	337	13	0.50	343	13.26	7	24.68	2	302	88.00	12	9
	10 to <20	295	3	0.50	296	11.08	6	22.97	2	227	76.76	8	7
	20 to <30	42	10	0.50	47	27.00	1	35.43	1	75	158.89	4	2
	30.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	100.00 (Default)	1,061	12	0.50	1,067	100.00	20	31.58	1	655	61.34	285	222
Subtotal		**25,568**	**2,025**	**0.68**	**26,940**	**6.18**	**459**	**24.71**	**3**	**13,561**	**50.34**	**431**	**403**

A-IRB	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range 1)	**On-balance sheet exposures 2)**	**Off-balance-sheet exposures pre-CCF 3)**	**Exposure weighted average CCF 4)**	**Exposure post CCF and post CRM 5)**	**Exposure weighted average PD (%) 6)**	**Number of obligors**	**Exposure weighted average LGD (%) 7)**	**Exposure weighted average maturity (years)**	**Risk weighted exposure amount after supporting factors 8)**	**Density of risk weighted exposure amount (%) 9)**	**Expected loss amount**	**Value adjustments and provisions**
All figures in € million, unless otherwise stated													
Corporates - others	0.00 to <0.15	877	-	-	862	0.08	22	2.76	4	22	2.51	-	-
	0.00 to <0.10	361	-	-	355	0.05	8	0.50	4	1	0.30	-	-
	0.10 to <0.15	517	-	-	507	0.10	14	4.34	4	21	4.06	-	-
	0.15 to <0.25	611	-	-	608	0.20	14	1.59	5	14	2.32	-	-
	0.25 to <0.50	543	1	0.50	543	0.33	17	24.52	4	228	42.03	-	-
	0.50 to <0.75	-	-	-	-	-	-	-	-	-	-	-	-
	0.75 to <2.50	176	-	-	176	1.58	5	1.36	3	6	3.17	-	1
	0.75 to <1.75	74	-	-	74	1.00	3	0.06	5	-	0.15	-	-
	1.75 to <2.5	102	-	-	102	2.00	2	2.30	1	5	5.36	-	1
	2.50 to <10.00	-	-	-	-	-	-	-	-	-	-	-	-
	2.5 to <5	-	-	-	-	-	-	-	-	-	-	-	-
	5 to <10	-	-	-	-	-	-	-	-	-	-	-	-
	10.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	10 to <20	-	-	-	-	-	-	-	-	-	-	-	-
	20 to <30	-	-	-	-	-	-	-	-	-	-	-	-
	30.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	100.00 (Default)	1	-	-	1	100.00	2	18.17	1	-	62.50	-	-
Subtotal		**2,208**	**1**	**0.50**	**2,191**	**0.32**	**60**	**7.72**	**4**	**270**	**12.33**	**1**	**1**
Total (all exposures classes)		**29,264**	**2,075**	**0.68**	**30,645**	**5.50**	**679**	**22.61**	**3**	**13,973**	**46.00**	**433**	**405**

1) PD ranges for the estimated probability of default (PD), excluding substitution effects due to credit risk mitigation techniques.
2) Gross carrying amount before impairments (but after amortisation) and before application of credit risk mitigation techniques.
3) Nominal value before provisions and application of credit risk mitigation techniques and before credit conversion factors (CCF).
4) Exposure-weighted average conversion factor for off-balance sheet exposures, weighted using the off-balance sheet exposure in column (c).
5) IRBA exposure value (exposure at default, EaD) after application of credit risk mitigation techniques and credit conversion factors (CCF), but before impairments and provisions.
6) Exposure-weighted average probability of default (PD), weighted using the exposure value in column (e).
7) Exposure-weighted average loss given default (LGD), weighted using the exposure value in column (e).
8) Risk-weighted IRBA exposure amounts (risk-weighted assets, RWA) after SME and infrastructure supporting factors pursuant to Articles 501 and 501a of the CRR. The IRBA exposure classes “Equity exposures” and “Other non-credit obligation assets”, which are not based on separate LGD and/or CCF estimates, are not disclosed.
9) RWA density (%): calculated by dividing the RWA (column j) by the respective EaD (column e).
10) Excluding specialised lending within the meaning of Article 153 (4) of the CRR.

EU CR7-A: IRB approach – Disclosure of the extent of the use of credit risk mitigation techniques

		a	b	c	d	e	f	g	h	i	j	k	l	m	n
		Total exposures 1)	Credit risk Mitigation techniques 2)											Credit risk Mitigation methods in the calculation of RWEAs	
			Funded credit Protection (FCP)									Unfunded credit Protection (UFCP)			
			Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)				Part of exposures covered by Other funded credit protection (%)				Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWA without substitution effects (reduction effects only) 3)	RWA with substitution effects (both reduction and sustitution effects) 4)
	A-IRB				Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)		Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)				
All figures in € million, unless otherwise stated															
1	Central governments and central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Institutions	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Corporates	30,645	-	98.47	98.47	-	-	-	-	-	-	-	-	13,973	13,973
3.1	thereof: Corporates – SMEs	1,514	-	99.86	99.86	-	-	-	-	-	-	-	-	142	142
3.2	thereof: Corporates – Specialised lending	26,940	-	98.27	98.27	-	-	-	-	-	-	-	-	13,561	13,561
3.3	thereof: Corporates – Other	2,191	-	99.97	99.97	-	-	-	-	-	-	-	-	270	270
4	Retail	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	**Total**	**30,645**	**0**	**98.47**	**98.47**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13,973**	**13,973**

1) Exposure value (exposure at default, EaD) after credit conversion factors (CCF), but excluding credit risk mitigation techniques/substitution effects due to a guarantee.
2) The collateral disclosed in columns (b) through (l) provides information on the share of the exposures secured by said collateral in the total exposures as per column (a). The collateral value is limited to the value of the secured exposure.
3) Risk-weighted IRBA exposure amounts (risk-weighted assets, RWA) after credit risk mitigation techniques. The classification to an IRBA exposure class was carried out in line with the significant exposure classes of the original debtor.
4) Risk-weighted IRBA exposure amounts (risk-weighted assets, RWA) after credit risk mitigation techniques. The classification to an IRBA exposure class was carried out in line with the significant exposure classes of the protection seller.

Credit exposures

The relevant regulatory exposure figure for the purposes of calculating the risk-weighted exposure amounts (risk-weighted assets, RWA) and the own funds requirements is the exposure at default (EaD). The CRR-compliant EaD for IRBA credit exposures represents the outstanding exposure in the event of default and corresponds to the IFRS carrying amount in the financial statements (including accrued interest) for most products.

In cases involving an existing committed available line, this – multiplied by the product-specific credit conversion factor (CCF) – is included as a further component of EaD. The CCF expresses how much of an available line is expected to be drawn down within one year before a possible default. The CCF is currently 50% to 100% for mortgage loans and 100% for all other products (for example, bank guarantees).

The EaD is calculated for all exposures, irrespective of whether a default event has, in fact, already occurred.

The EaD for on-balance sheet and off-balance sheet IRBA credit exposures amounted to € 30,645 million (31 December 2022: € 29,970 million), and the RWA amounted to € 13,973 million (31 December 2022: € 13,638 million). This excludes the exposure classes “Equity exposures” and “Other non-credit obligation assets”, as these are not based on separate LGD and/or CCF estimates.

The total IRBA risk-weighted exposure amounts (RWA), including the exposure classes “Equity exposures” and “Other non-credit obligation assets”, amounted to € 14,020 million (31 December 2022: € 13,693 million; 31 March 2023: € 13,748 million). The main reasons behind the RWA increase in the second quarter of 2023 (€ +272 million) are shown in table EU CR8.

EU CR8: RWA flow statements of credit risk exposures under the IRB approach

All figures in € million		a
		Risk weighted exposure amount [1)]
1	**Risk weighted exposure amount as at 31.03.2022**	**13,748**
2	Asset size (+/-)	548
3	Asset quality (+/-)	-28
4	Model updates (+/-)	-
5	Methodology and policy (+/-)	-
6	Acquisitions and disposals (+/-)	-
7	Foreign exchange movements (+/-)	3
8	Other (+/-)	-250
9	**Risk weighted exposure amount as at 30.06.2022**	**14,020**

[1)] Risk-weighted IRBA exposure amounts (risk-weighted assets, RWA) after application of the SME supporting factor pursuant to Article 501 of the CRR, including the IRBA exposure classes “Equity exposures” and “Other non-credit obligation assets”.
In contrast, counterparty credit risk exposures (derivatives and securities financing transactions) are not included in EU CR8.

A key influencing factor for the RWA increase under the IRB approach was new business generated in the Commercial Real Estate Finance segment in the second quarter of 2023 which significantly exceeded regular and early repayments (EU CR8, line 2). Small currency effects, above all regarding the US dollar (USD) and the British pound sterling (GBP), also contributed to the RWA increase (EU CR8, line 7), whilst other factors had an offsetting effect on the RWA, in particular individual PD rating improvements, which in turn offset an LGD increase of individual transactions resulting from lower property market values (EU CR8, line 3), and netting effects related to extensions of real estate financings and changes in the allocation of exposures to exposure classes (corporates versus small and medium-sized enterprises, SMEs) (EU CR8, line 8).

RWA density

The average RWA density for the IRBA credit exposures amounts to 46.0% (31 December 2022: 45.5%); the "Central governments and central banks", "Institutions" and "Retail exposures" IRBA exposure classes do not apply to pbb Group. Risk weights are a key component used to calculate the risk-weighted exposure amounts to be backed by own funds as part of a risk-oriented approach; the RWA are calculated by multiplying the risk weight and the IRBA exposure value (EaD).

PD

The probability of default (PD) indicates the probability that a borrower/counterparty will not be able to service their loan in accordance with the contractual terms in the course of a given year (irrespective of the amount of the exposure and the collateral furnished). The PD for the IRBA credit exposures averages 5.5% (31 December 2022: 4.3%).

LGD

The loss given default (LGD) indicates the expected rate of loss that pbb Group will incur in the event that a client defaults. The LGD averages 22.6% for the credit exposures under the IRB approach (31 December 2022: 22.7%).

CCF

The undrawn IRBA loan commitments amount to a total of € 2,075 million (31 December 2022: € 2,739 million). The average CCF, which expresses how much of an available line is expected to be drawn down within one year before a possible default, comes to 68% (31 December 2022: 63%).

All pbb Group's PD, LGD and CCF rating systems broadly follow a through-the-cycle philosophy, whereby the structure of this philosophy can change between the various models, for example due to the risk factors taken into account in the respective model. Current default rates, loss given default and CCF ratios may thus differ from the through-the-cycle forecasts – depending on the phase of the economic cycle.

Counterparty credit risk

This chapter sets out the information on pbb Group's counterparty credit risk resulting from derivatives and securities financing transactions (securities lending/repo transactions) in accordance with Article 439 of the CRR and also Articles 438 (h), 444 (e) and 452 (g) of the CRR.

Counterparty credit risk (CCR) is the risk of default by the counterparty in the context of a derivative or securities financing transaction before the final settlement of the payments associated with the transaction concerned.

Objectives and counterparties

Derivatives

pbb Group uses derivatives mainly to hedge market risks resulting, for example, from changes in interest rates or exchange rates. These hedging transactions are countered by underlying asset or liability items. The hedging of interest and exchange rate risks is intended to reduce and/or avoid market risks. The counterparties in derivative transactions are mainly OECD credit institutions or Eurex Clearing. pbb Group also provides derivatives for real estate customers and public-law entities, for example to enable them to hedge market risks associated with commercial real estate financing on their side.

Securities financing transactions

Securities lending/repo transactions are used for short-term liquidity management and are also an important source of collateralised funding for pbb. The counterparties are primarily OECD credit institutions or Eurex Repo.

Qualifying central counterparty

pbb is a direct clearing member of Eurex Clearing. Eurex Clearing is the central clearing house used by pbb and it is the qualifying central counterparty (qualifying CCP) pursuant to Article 4 no. 88 of the CRR. This allows pbb Group to make use of the option of settling certain types of contracts via a central counterparty, reducing bilateral default risk in the process.

Methods for determining the own funds requirement

Derivatives

pbb Group applies the standardised approach (SA-CCR) in accordance with Articles 274 et seqq. of the CRR to calculate the own funds requirements for counterparty credit risk pursuant to Part 3, Title II, Chapter 6 of the CRR (i.e. for derivative transactions). pbb does not currently use any proprietary internal models (IMM).

pbb Group uses the standardised approach in accordance with Article 384 of the CRR to calculate the additional own funds requirement for OTC derivatives for credit valuation adjustment risk (CVA risk) pursuant to Part 3, Title VI of the CRR.

Securities financing transactions

As far as securities financing transactions (securities lending/repo transactions) are concerned, pbb Group applies the provisions for credit risk mitigation in accordance with Chapter 4 of the CRR, namely the Financial Collateral Comprehensive Method in accordance with Articles 223 et seqq. of the CRR.

Qualifying central counterparty

pbb Group applies the risk-sensitive approach in accordance with Article 308 of the CRR to calculate the own funds requirements for contributions to the default fund of a qualifying central counterparty.

Quantitative information on counterparty credit risk

Tables EU CCR1 to EU CCR5 and EU CCR8 below show pbb Group's counterparty credit risk exposures as at the disclosure date of 30 June 2023.

Table EU CCR6 "Credit derivatives exposures" in accordance with Article 439 (j) of the CRR is not relevant for pbb Group. pbb Group has not executed any hedging transactions with credit derivatives (purchased or sold credit collateral), neither as protection buyer nor protection seller.

Table EU CCR7 "RWA flow statements of CCR exposures under the IMM" in accordance with Article 438 (h) of the CRR is also not relevant for pbb Group. pbb Group does not use an internal model method (IMM) for counterparty credit risk.

Counterparty credit risk exposures

The EaD-based exposure values for counterparty credit risk, excluding initial margin and default fund contributions, amounted to € 584 million as at the disclosure date (31 December 2022: € 874 million), € 53 million (31 December 2022: € 204 million) of which relates to exposures vis-à-vis the central counterparty Eurex Clearing.

The EaD of securities financing transactions (€ -308 million compared to 31 December 2022) declined in the first half of 2023, whereas the EaD of derivative transactions (€ +18 million compared to 31 December 2022) increased marginally. As a result, the EaD for counterparty credit risk exposures decreased all in all, by € 290 million compared to 31 December 2022.

Of the total of € 584 million, an amount of € 571 million refers to exposures that are recorded under the standardised approach (CRSA), and an amount of € 13 million to exposures for which pbb Group calculates RWA under the advanced IRB approach (IRBA) based on Bank-internal rating procedures.

The exposure values (EaD) for CVA risk amount to € 202 million (31 December 2022: € 195 million). The CVA charge is the additional own funds requirement for the risk of a credit valuation adjustment (CVA risk) for OTC derivatives, i.e. for potential (unexpected) market value losses in connection with a deterioration in a counterparty's credit rating. Transactions with Eurex Clearing are not included in the own funds requirement for CVA risk.

The exposures for contributions to Eurex Clearing's default fund amount to € 7 million (31 December 2022: € 7 million). The default fund is used to cover losses that could arise due to the default of one or more clearing members and that exceed the losses covered by the margin calls (initial margin).

Mitigation of counterparty credit risk and securing collateral

The business with both derivatives and securities lending/repo transactions is usually concluded based on standardised bilateral netting agreements which serve to minimise the legal risk, as well as the economic and regulatory default risk, and which enable mutual risks to be netted. In doing so, the positive and negative market values of all contracts included in one netting agreement can be netted, and the future regulatory risk premiums for these products can be reduced. As a result of the netting process, default risk is reduced to one single net receivable vis-à-vis the counterparty. pbb Group does not use cross-product netting (derivatives versus securities financing transactions).

In line with the netting agreements, pbb Group also enters into standard market collateral agreements (German Collateral Annex to the DRV or ISDA Collateral Support Annex) with certain business partners in addition to the netting contracts, in order to hedge the net receivable/liability that remains after netting (receipt or furnishing of collateral). The collateral agreements limit the default risk through prompt valuation and adjustment of the customer exposure (limit relief), meaning that they free up scope for new transactions within the counterparty lines that have been granted.

Collateral used for derivative and securities lending/repo transactions comprises financial collateral (mainly cash collateral, but also securities). Collateral is usually provided by full transfer of rights, and in the case of securities, also by way of pledging. pbb usually furnishes and receives cash collateral in euros. Table EU CCR5 shows the composition of collateral received and furnished as at the disclosure date.

Table EU CCR1 shows the counterparty credit risk based on the method used in accordance with Article 439 (f), (g), (k) and (m) of the CRR. Exposures to central counterparties are not included; these are shown separately in table EU CCR8 below.

EU CCR1: Analysis of CCR exposure by approach

		a	b	c	d	e	f	g	h
All figures in € million, unless otherwise stated		**Replacement cost (RC)** [4]	**Potential future exposure (PFE)** [5]	**EEPE** [6]	**Alpha used for computing regu-latory exposure value**	**Exposure value pre-CRM** [7]	**Exposure value post-CRM** [8]	**Exposure value** [9]	**RWA** [10]
EU-1	EU - Original Exposure Method (for derivatives)	-	-	———	1.4	-	-	-	-
EU-2	EU - Simplified SA-CCR (for derivatives)	-	-	———	1.4	-	-	-	-
1	SA-CCR (for derivatives) [1) 2)]	491	263	———	1.4	799	218	216	115
2	IMM (for derivatives and SFTs)	———	———	-	-	-	-	-	-
2a	thereof: securities financing transactions netting sets	———	———	-	———	-	-	-	-
2b	thereof: derivatives and long settlement transactions netting sets	———	———	-	———	-	-	-	-
2c	thereof: from contractual cross-product netting sets	———	———	-	———	-	-	-	-
3	Financial collateral simple method (for SFTs)	———	———	———	———	-	-	-	-
4	Financial collateral comprehensive method (for SFTs) [3]	———	———	———	———	-203	316	316	63
5	VaR for SFTs	———	———	———	———	-	-	-	-
6	**Total**	———	———	———	———	**596**	**534**	**532**	**178**

1) Table EU CCR1 does not include any exposures to central counterparties (CCPs).
2) pbb measures the exposure value for the counterparty credit risk associated with derivative transactions using the standardised approach (SA-CCR) in accordance with Part 3, Chapter 6, Section 3 of the CRR.
3) As far as securities financing transactions (securities lending/repo transactions) are concerned, pbb applies the provisions for credit risk mitigation in accordance with Part 3, Chapter 4 of the CRR, namely the Financial Collateral Comprehensive Method in accordance with Articles 223 et seqq. of the CRR.
4) Replacement cost (RC), including collateral received/furnished, calculated in accordance with Article 275 of the CRR.
5) Potential future exposure (PFE) calculated in accordance with Article 278 of the CRR.
6) Effective expected positive exposure (effective EPE) pursuant to Article 272 no. 22 of the CRR applying the internal model method (IMM).
7) Derivatives (line 1): exposure value after netting, but before credit risk mitigation (collateral received), and excluding CVA (credit valuation adjustment) losses recognised in the income statement.
SFTs (line 4): exposure value (cash or securities amount) before netting and before credit risk mitigation.
8) Derivatives (line 1): exposure value after netting and after credit risk mitigation (collateral received), but excluding CVA losses recognised in the income statement.
SFTs (line 4): exposure value (exposure at default, EaD) after netting and after credit risk mitigation.
9) Exposure value (exposure at default, EaD), the relevant amount (it contains the counterparty risk weight) for calculating the risk-weighted exposure amounts (column h).
The EaD of a netting set is calculated as follows: EaD = 1.4 x (RC + PFE).
Derivatives (line 1): exposure value after netting and after credit risk mitigation (collateral received), and including CVA losses recognised in the income statement.
SFTs (line 4): exposure value after netting and after credit risk mitigation.
10) Risk-weighted exposure amount (risk-weighted assets, RWA) for calculating own funds requirements based on the credit risk standardised/IRB approach.

Table EU CCR8 shows the exposures to central counterparties in accordance with Article 439 (i) of the CRR. The qualifying central counterparty (qualifying CCP) used by pbb is Eurex Clearing.

EU CCR8: Exposures to CCPs

		a	b
All figures in € million, unless otherwise stated		**Exposure value [1)]**	**RWA [2)]**
1	**Exposures to QCCPs (total)**	**—**	**3**
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); thereof	53	1
3	(i) OTC derivatives	17	-
4	(ii) Exchange-traded derivatives	-	-
5	(iii) SFTs	36	1
6	(iv) Netting sets where cross-product netting has been approved	-	-
7	Segregated initial margin [3)]	-	—
8	Non-segregated initial margin [4)]	-	-
9	Prefunded default fund contributions	-	-
10	Unfunded default fund contributions	7	2
19	Prefunded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

[1)] Exposure value (exposure at default, EaD), excluding exposures to non-CCPs (CCP: central counterparty).
[2)] Risk-weighted exposure amount (risk-weighted assets, RWA), excluding exposures to non-CCPs.
[3)] Collateral held out of court, bankruptcy remote within the meaning of Article 300 no. 1 of the CRR.
[4)] Collateral not held out of court, bankruptcy remote within the meaning of Article 300 no. 1 of the CRR.

Table EU CCR2 shows the own funds requirements for CVA risk based on the method used in accordance with Article 439 (h) of the CRR. No CVA charge is calculated for exposures to the central counterparty Eurex Clearing in accordance with Article 382 of the CRR.

EU CCR2: Transactions subject to own funds requirements for CVA risk

		a	b
All figures in € million, unless otherwise stated		**Exposure value [2)]**	**RWEA**
1	Total transactions subject to the Advanced method	-	-
2	(i) VaR component (including the 3× multiplier)	———	-
3	(ii) stressed VaR component (including the 3× multiplier)	———	-
4	Transactions subject to the Standardised method [1)]	202	143
EU-4	Transactions subject to the Alternative approach (Based on the Original Exposure Method)	-	-
5	**Total transactions subject to own funds requirements for CVA risk**	**202**	**143**

[1)] pbb uses the standardised approach in accordance with Article 384 of the CRR to calculate the own funds requirements for credit valuation adjustment risk (CVA risk) for OTC derivatives. Transactions with Eurex Clearing, the central counterparty (CCP) used by pbb, are not included in the own funds requirements for CVA risk.

[2)] Exposure value (exposure at default, EaD), the relevant amount (it contains the counterparty risk weight) for calculating the risk-weighted exposure amounts (column b).

Table EU CCR3 shows the counterparty credit risk based on the standardised approach by exposure class and risk weight in accordance with Articles 439 (l) and 444 (e) of the CRR. Reporting under the standardised approach includes the exposure values to Eurex Clearing (“Institutions” exposure class).

EU CCR3: Standardised approach – CCR exposures by regulatory exposure class and risk weights

		a	b	c	d	e	f	g	h	i	j	k	l
	Exposure classes	**Risk weight**											**Total exposure value [1)]**
All figures in € million, unless otherwise stated		**0%**	**2%**	**4%**	**10%**	**20%**	**50%**	**70%**	**75%**	**100%**	**150%**	**Others**	
1	Central governments or central banks	-	-	-	-	-	-	-	-	-	-	-	-
2	Regional government or local authorities	-	-	-	-	-	-	-	-	-	-	-	-
3	Public sector entities	1	-	-	-	-	-	-	-	-	-	-	1
4	Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-
6	Institutions	-	53	-	-	333	185	-	-	-	-	-	570
7	Corporates	-	-	-	-	-	-	-	-	-	-	-	-
8	Retail	-	-	-	-	-	-	-	-	-	-	-	-
9	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-
10	Other items	-	-	-	-	-	-	-	-	-	-	-	-
11	**Total exposure value**	**1**	**53**	**0**	**0**	**333**	**185**	**0**	**0**	**0**	**0**	**0**	**571**

[1)] Exposure value (exposure at default, EaD), including transactions settled with Eurex Clearing, in accordance with the COREP reporting of own funds and own funds requirements.

Table EU CCR4 shows the counterparty credit risk based on the IRB approach by exposure class and PD scale in accordance with Articles 439 (l) and 452 (g) of the CRR. No counterparty credit risk exposures are allocated to the “Central governments and central banks”, “Institutions” or “Retail exposures” IRBA exposure classes as at the disclosure date, which is why table EU CCR4 is only shown for the “Corporates” exposure class.

EU CCR4: IRB approach – CCR exposures by exposure class and PD scale

			a	b	c	d	e	f	g
All figures in € million, unless otherwise stated	Exposure class	PD scale [1]	Exposure value [2]	Exposure weighted average PD (%) [3]	Number of obligors	Exposure weighted average LGD (%) [4]	Exposure weighted average maturity (years)	RWA [5]	Density of risk weighted exposure amounts (%) [6]
1	Corporates - Specialised Lending	0.00 to <0.15	-	-	-	-	-	-	-
2		0.15 to <0.25	-	-	-	-	-	-	-
3		0.25 to <0.50	1	0.39	16	56.01	4	1	82.04
4		0.50 to <0.75	-	-	-	-	-	-	-
5		0.75 to <2.50	9	1.23	41	56.01	4	13	139.57
6		2.50 to <10.00	2	5.06	17	56.01	4	5	220.19
7		10.00 to <100.00	-	-	-	-	-	-	-
8		100.00 (Default)	-	-	-	-	-	-	-
	Sub-total		**12**	**2.04**	**82**	**56.00**	**4**	**18**	**149.02**
1	Corporates - Specialised Lending	0.00 to <0.15	-	-	-	-	-	-	-
2		0.15 to <0.25	1	0.20	2	56.01	5	1	88.41
3		0.25 to <0.50	-	-	-	-	-	-	-
4		0.50 to <0.75	-	-	-	-	-	-	-
5		0.75 to <2.50	-	-	-	-	-	-	-
6		2.50 to <10.00	-	-	-	-	-	-	-
7		10.00 to <100.00	-	-	-	-	-	-	-
8		100.00 (Default)	-	-	-	-	-	-	-
	Sub-total		**1**	**0.33**	**5**	**56.01**	**5**	**1**	**92.41**
Total (all CCR-relevant risk position classes) [7]			**13**	**1.93**	**87**	**56.00**	**4**	**19**	**145.54**

[1] PD ranges for the estimated probability of default (PD), excluding substitution effects due to credit risk mitigation techniques.
[2] Exposure value (exposure at default, EaD).
[3] Exposure value-weighted average probability of default (PD), weighted using the exposure value in column (a).
[4] Exposure value-weighted average loss given default (LGD), weighted using the exposure value in column (a).
[5] Risk-weighted exposure amounts (risk-weighted assets, RWA).
[6] RWA density (%): calculated by dividing the RWA (column f) by the respective EaD (column a).
[7] As no CCR exposures are allocated to the “Central governments and central banks”, “Institutions” or “Retail exposures” IRBA exposure classes as at the disclosure date, no breakdown has been provided for these exposure classes.

Table EU CCR5 shows the collateral received and furnished for counterparty credit risk, with separate information provided for derivatives and securities financing transactions, in accordance with Article 439 (e) of the CRR. Further information on the collateral used is described in the section entitled “Mitigation of counterparty credit risk and securing collateral”.

EU CCR5: Composition of collateral for CCR exposures

		a	b	c	d	e	f	g	h
		Collateral used in derivative transactions				Collateral used in SFTs			
	Collateral type	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral	
All figures in € million		Segregated [1]	Unsegregated [2]	Segregated [1]	Unsegregated [2]	Segregated [1]	Unsegregated [2]	Segregated [1]	Unsegregated [2]
1	Cash – domestic currency	-	327	-	1,383	-	32	-	-
2	Cash – other currencies	-	120	-	-	-	-	-	-
3	Domestic sovereign debt	-	-	-	-	-	-	-	-
4	Other sovereign debt	-	-	-	-	-	203	-	-
5	Government agency debt	-	-	-	-	-	-	-	-
6	Corporate bonds	-	-	-	-	-	-	-	-
7	Equity securities	-	-	-	-	-	-	-	-
8	Other collateral	-	-	-	-	-	-	-	-
9	**Total**	**0**	**447**	**0**	**1,383**	**0**	**235**	**0**	**0**

[1] Collateral held out of court, bankruptcy remote within the meaning of Article 300 no. 1 of the CRR.
[2] Collateral not held out of court, bankruptcy remote within the meaning of Article 300 no. 1 of the CRR.

Securitisations

As at the disclosure date of 30 June 2023, pbb Group still has no exposures from securitisations in its portfolio. As a result, the information and tables pursuant to Article 449 of the CRR in conjunction with EU SEC1 to EU SEC5 do not have to be disclosed for pbb Group.

There are no plans for any new securitisations of pbb's own exposures in the 2023 financial year. pbb Group's business strategy does not currently define new securitisation transactions as an objective.

Market risk

Market risk is defined as the risk of a market value loss, or a negative change in net interest income for the period, due to volatility of the market prices of financial instruments. The transactions entered into by pbb Group are mainly subject to the following types of market risk: general interest rate risk (risk from changes in general market interest rates), basis risk (risk from changes in tenor basis spreads or cross-currency basis spreads), volatility risk (risk from changes in implied volatility), credit spread risk (risk from changes in credit spreads), foreign exchange risk (risk from changes in foreign exchange rates) and concentration risk (risk of additional losses due to a non-diversified portfolio mix).

In terms of pbb Group's market risk (including interest rate risk in the banking book), this chapter also provides information on the calculation of own funds requirements pursuant to Article 445 of the CRR and on the interest rate risk in the banking book pursuant to Article 448 of the CRR. However, disclosure pursuant to Article 455 of the CRR ("Use of internal market risk models") is not relevant for pbb Group. pbb Group is currently not using any proprietary internal models (IMA) to calculate its own funds requirements, but instead adopts the standardised approach as set out in Articles 325 et seqq. of the CRR.

Own funds requirement for market risk

In accordance with Part 3, Title IV of the CRR, market risks must be backed by own funds. pbb Group still does not maintain a trading book for securities or derivatives portfolios held to realise short-term gains. Thus, only own funds requirements for foreign exchange risk in the banking book (the risk arising from changes in foreign exchange rates) apply to pbb Group's transactions, as illustrated in table EU MR1 (below) in accordance with Article 445 of the CRR. pbb Group uses the standardised approach pursuant to Articles 325 et seqq. of the CRR to calculate own funds required to cover market risk.

pbb Group is currently not using any any proprietary internal models (IMA) pursuant to Articles 362 et seqq. of the CRR to calculate its own funds requirements. Tables EU MR2-A / EU MR2-B, EU MR3 and EU MR4 in accordance with Articles 455 and 438 (h) of the CRR are therefore not relevant for pbb Group.

Quantitative information on market risk

Table EU MR1 in accordance with Article 445 of the CRR shows the own funds requirements and risk-weighted exposure amounts (RWA) for pbb Group's market risk.

At € 14 million, the RWA are on the level reported at the end of the first quarter (31 March 2023: € 14 million), but markedly below the level at the end of 2022 (31 December 2022: € 31 million). The decrease in the first quarter of 2023 was mainly due to credit spread changes seen for the US dollar (USD), British pound sterling (GBP), and Swedish krona (SEK). The own funds requirement for market risks as at the disclosure date amounted to € 1 million (31 December 2022: € 2 million).

EU MR1: Market risk under the standardised approach

All figures in € million		a Risk-weighted assets (RWA)	a Minimum capital requirement
	Outright products		
1	Interest rate risk (general and specific)	-	-
2	Equity risk (general and specific)	-	-
3	Foreign exchange risk	14	1
4	Commodity risk	-	-
	Options		
5	Simplified approach	-	-
6	Delta-plus approach	-	-
7	Scenario approach	-	-
8	Securitisation (specific risk)	-	-
9	**Total**	**14**	**1**

Interest rate risk in the banking book

In contrast to default risks, other market risks (foreign exchange risks), or operational risks, the CRR stipulates no regulatory own funds requirement for interest rate risk in the banking book.

However, despite the absence of a regulatory own funds requirement, pbb Group applies the same methods and processes for measuring interest rate risk in the banking book as for market risk, as set out in the Disclosure Report as at 31 December 2022 (chapter "Market risk management", pages 137 et seqq.). As set out therein, pbb incorporates not only present value interest rate risks, but also periodic interest rate risks, and measures, manages and monitors these risks on a regular basis.

pbb is subject to direct ECB supervision and meets the additional own funds requirements and capital requirements under the ECB's Supervisory Review and Evaluation Process (SREP).

Risk metrics and risk reporting

Present value interest rate risk

Interest rate risk in the banking book at present value refers to an institution's risk in terms of economic value resulting from unfavourable interest rate movements that impact instruments sensitive to interest rate changes, and includes the risk of yield curve shifts (gap risk), basis risk and option risk. Present value risk is measured through sensitivities and Value-at-Risk metrics and is determined by Risk Management & Control (RMC) on a daily basis, independently of trading units, for all items in the banking book sensitive to interest rate changes. Compliance with sensitivity triggers and Value at Risk (VaR) limits is also monitored on a daily basis and reported to pbb's Management Board. The specific internal and regulatory stress scenarios for present value interest rate risk in the banking book, including the six interest rate scenarios prescribed by the EBA Guidelines EBA/GL/2018/02 and EBA/GL/2022/14 (applicable since 30 June 2023), are calculated on a monthly basis.

Periodic interest rate risk

The periodic interest rate risk in the banking book reflects the risk arising from changes in the yield curves relative to the Bank's earnings. The measurement looks at changes in net interest income which result from interest rate changes, assuming a constant balance sheet (delta static net interest income) pursuant to IFRS 9. Calculations are carried out at the end of each half of the year and at year-end, for a simulation horizon covering the following four quarters.

The dynamic earnings model is also used to manage periodic interest rate risk (in accordance with EBA/GL/2018/02 and EBA/GL/2022/14). In contrast to the static net interest income assumption, this model does not assume a constant balance sheet, but instead uses new business data from multi-year planning. Furthermore, not only net interest income, but also net fee and commission income, net income from realisations, net income on financial instruments recognised through profit or loss, and changes in accumulated other comprehensive income are calculated. Negative deviations from the base value are monitored at the end of each quarter, using a trigger each for changes in the income statement and for changes in accumulated other comprehensive income. No trigger event occurred in any of the eight different interest rate stress scenarios (including those prescribed by the EBA) in the first half of 2023. Periodic interest rate risk is assessed on a quarterly basis, using the dynamic earnings model.

Quantitative information on interest rate risk in the banking book

Table EU IRRBB1 in accordance with Article 448 (1) (a) and (b) of the CRR shows pbb Group's interest rate risk in the banking book. The table includes changes in net interest income and in the present value of banking book positions resulting from yield curve shifts within the six interest rate scenarios prescribed in the EBA Guidelines EBA/GL/2018/02 and EBA/GL/2022/14.

Present value interest rate risk

Under the assumptions made above in accordance with Guidelines EBA/GL/2018/02 and EBA/GL/2022/14, pbb Group's largest potential negative change in present value as at 30 June 2023 arises from the interest rate shock scenario simulating a parallel upward shift in the yield curves. In this scenario, the present value loss in the banking book amounts to € 244 million.

Periodic interest rate risk

Looking at periodic interest rate risks, a sudden parallel upward shift of the yield curves would benefit delta static NII. In case of a parallel shift in the yield curves by +200 basis points or -200 basis points (with a dynamic interest rate floor in accordance with EBA/GL/2018/02 and EBA/GL/2022/14), the change in delta static NII as at 30 June 2023 amounts to a total of € -52 million or € 41 million, respectively. The change compared to the previous reporting period is mainly due to pbb's balance sheet structure.

EU IRRBB1: Interest rate risk of non-trading book activities

		a	b	c	d
	Supervisory shock scenarios	**Changes of economic value of equity [1]**		**Changes of the net interest income [2]**	
All figures in € million		**30.06.2023**	**31.12.2022**	**30.06.2023**	**31.12.2022**
1	Parallel up	-244	-240	-52	-40
2	Parallel down	130	137	41	18
3	Steepener	-1	-21	-	-
4	Flattener	-47	-24	-	-
5	Short rate up	-114	-95	-	-
6	Short rate down	61	50	-	-

[1] ∆ EVE: this is a metric measuring changes – to the present value of all instruments in the banking book sensitive to interest rate changes – resulting from sudden interest rate movements, assuming that all banking book positions run off without a replacement.
[2] ∆ NII: this is an earnings-based metric measuring changes – in the net interest income, originating from sudden interest rate changes – within the subsequent four quarters. The ∆ NII information presented here refers to a parallel shift in the yield curves by +/- 200 basis points.

Liquidity and funding risk

Liquidity risk is the risk that current or future payment obligations cannot be met at all, not in full or not when due in terms of volume and timing structure.

The chapter “Liquidity and funding risk” presents information about pbb Group’s Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) in accordance with Article 451a (2) and (3) of the CRR.

Liquidity Coverage Ratio

The liquidity coverage requirement or Liquidity Coverage Ratio (LCR) is the ratio of an institution’s liquidity buffer (i.e. the sum of high-quality liquid assets) to its net cash outflows during a phase of stress lasting 30 calendar days. The LCR is stated as a percentage.

Pursuant to Article 412 of the CRR, the LCR obliges institutions to hold high-quality liquid assets as a liquidity buffer, in order to be able to compensate for net cash outflows during phases of stress lasting 30 days. The prescribed scenario includes both market-wide and institution-specific effects. In phases of stress, institutions may use up their liquid assets to cover their net cash outflows, even if the LCR might then fall below the applicable minimum of 100%.

Regulatory provisions require a minimum LCR of 100%. The LCR figures for pbb Group during the second quarter of 2023 significantly exceeded 100% at all times. As at the disclosure date of 30 June 2023, the Liquidity Coverage Ratio amounted to 163% (31 March 2023: 309%).

Disclosures on the Liquidity Coverage Ratio

Table EU LIQ1 below, in accordance with Article 451a (2) of the CRR, shows all information on the LCR for pbb Group, including all values and figures for each of the four calendar quarters preceding the disclosure date (30 June 2023). However, as opposed to the above-mentioned values as at the reporting date, these values and figures are simple averages of the figures collected at the end of each month over the twelve months preceding the end of each quarter. Table EU LIQ1 includes all items needed for the calculation of the LCR.

In the second quarter of 2023, the LCR exceeded 150% at all times, largely due the institution’s substantial liquidity reserve consisting of high-quality liquid assets (HQLA). Changes in the liquidity reserve and in net cash outflows are linked to the different dynamics of new business in Real Estate Finance and its funding.

Liquidity management within pbb Group

pbb is pbb Group’s only credit institution. Thus, only pbb performs liquidity management.

Funding sources

pbb Group uses a broad range of funding sources. Aside from deposits made by retail and institutional clients, funding is obtained through the issuance of Pfandbriefe, promissory notes and unsecured bonds on the capital market, but also through open-market transactions with the ECB and repo transactions on the interbank market and Eurex.

Liquidity buffer

As at the disclosure date of 30 June 2023, the liquidity reserves amounted to € 4,719 million (on average), consisting of high-quality level 1 liquid assets. The liquidity buffer consists primarily of liquid cash reserves (around 90%) and HQLA level 1 bonds. Level 1 comprises deductible deposits at Deutsche Bundesbank, along with debt securities issued by central governments, regional governments or local authorities, public-sector entities, multilateral development banks, international organisations or credit institutions backed by state guarantees.

Liquidity inflows and outflows

Liquidity inflows primarily consist of expected loan repayments and funding obtained. Liquidity outflows are composed as follows (in order of size):

- Undrawn mortgage or other loan commitments
- Maturing funding instruments
- Potential collateral calls

On average, cash outflows from derivatives accounted for only a minor share of all net cash outflows during the second quarter of 2023. To calculate potential collateral calls for derivatives, pbb Group uses the historical look-back approach (HLBA), meaning that collateral calls from the past are analysed to derive a conservative assumption as to potential future collateral calls. This assumed amount was € 469 million on average. Potential rating changes are not expected to have significant effects on the ability to provide collateral.

Currency mismatches

The sensitivity of foreign currency cash flows has no material impact on pbb Group's liquidity position. Based on the definition of the Basel Committee on Banking Supervision (BCBS), pbb Group's currency exposures are not considered material.

EU LIQ1: Quantitative information on LCR

All figures in € million, unless otherwise stated		a	b	c	d	e	f	g	h
		Total unweighted value (average) [1]				Total weighted value (average) [1]			
EU 1a	**Quarter ending on:**	**30.06.2023**	**31.03.2023**	**31.12.2022**	**30.09.2022**	**30.06.2023**	**31.03.2023**	**31.12.2022**	**30.09.2022**
EU 1b	Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
High-quality liquid assets									
1	Total high-quality liquid assets (HQLA)	———	———	———	———	**4,719**	**5,207**	**5,588**	**5,784**
Cash - outflows									
2	Retail deposits and deposits from small business customers, of which:	1,175	1,102	982	810	247	235	217	185
3	Stable deposits	-	-	-	-	-	-	-	-
4	Less stable deposits	1,160	1,085	956	782	232	217	191	156
5	Unsecured wholesale funding	899	855	970	1,057	676	612	688	766
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	-	-	-	-	-	-	-	-
7	Non-operational deposits (all counterparties)	484	510	582	618	261	267	300	327
8	Unsecured debt	415	345	388	439	415	345	388	439
9	Secured wholesale funding	———	———	———	———	61	53	35	3
10	Additional requirements	469	470	470	470	469	470	470	470
11	Outflows related to derivative exposures and other collateral requirements	469	470	470	470	469	470	470	470
12	Outflows related to loss of funding on debt products	-	-	-	-	-	-	-	-
13	Credit and liquidity facilities	-	-	-	-	-	-	-	-
14	Other contractual funding obligations	30	25	32	38	11	7	14	20
15	Other contingent funding obligations	2,941	3,185	3,563	3,631	864	988	1,246	1,278
16	**Total cash outflows**	———	———	———	———	**2,327**	**2,365**	**2,670**	**2,722**
Cash - inflows									
17	Secured lending (e.g. reverse repos)	450	246	304	291	8	5	9	13
18	Inflows from fully performing exposures	435	429	385	352	278	269	241	223
19	Other cash inflows	140	138	89	68	140	138	89	68
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)	———	———	———	———	-	-	-	-
EU-19b	(Excess inflows from a related specialised credit institution)	———	———	———	———	-	-	-	-
20	**Total cash inflows**	1,024	813	778	711	**425**	**411**	**339**	**303**
EU-20a	Fully exempt inflows	-	-	-	-	-	-	-	-
EU-20b	Inflows subject to 90% cap	-	-	-	-	-	-	-	-
EU-20c	Inflows subject to 75% cap	1,024	813	778	711	425	411	339	303
Total adjusted value									
EU-21	**Liquidity buffer**	———	———	———	———	**4,719**	**5,207**	**5,588**	**5,784**
22	**Total net cash outflows**	———	———	———	———	**1,902**	**1,953**	**2,331**	**2,419**
23	**Liquidity coverage ratio (%)**	———	———	———	———	**254**	**275**	**254**	**250**

[1] These values and figures are calculated for each of the four calendar quarters preceding the disclosure date, using the simple averages of the figures collected at the end of each month over the twelve months preceding the end of each quarter.

Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) is the ratio of available stable funding (ASF) to required stable funding (RSF). The NSFR is stated as a percentage.

In contrast to the Liquidity Coverage Ratio (LCR), which is designed to ensure a liquidity buffer under stressed conditions over a period of 30 days, the Net Stable Funding Ratio (NSFR) serves to secure stable liquidity over the medium- and long term. The goal is to ensure a robust maturity structure of assets vs. liabilities. Determining factors are real estate financing on the one hand, and corresponding funding activities on the other. No assets or liabilities are treated as being interdependent by pbb Group.

Regulatory provisions require a minimum NSFR of 100%. The values determined for pbb Group were significantly above the required minimum ratio in the first half of 2023; the NSFR as at the disclosure date of 30 June 2023 amounted to 114% (31 December 2022: 111%; 31 March 2023: 117%).

Quantitative information on the Net Stable Funding Ratio (NSFR)

Below, the tables EU LIQ2 pursuant to Article 451a (3) of the CRR show the quarter-end figures relevant for pbb Group's NSFR, broken down to each quarter of the relevant disclosure period 2023.

The NSFR fluctuations during the first half of the year primarily result from changes in the maturity structure of assets vs. liabilities, which were particularly driven by roll-down effects within funding.

EU LIQ2: Net Stable Funding Ratio (at quarter-end as at 30 June 2023)

Quarter-end figures as of 30.06.2023 All figures in € million, unless otherwise stated		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
		No maturity	< 6 months	6 months to < 1yr	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	3,184	-	-	446	3,629
2	Own funds	3,184	-	-	446	3,629
3	Other capital instruments	—	-	-	-	-
4	Retail deposits	—	1,973	990	2,653	5,319
5	Stable deposits	—	-	-	-	-
6	Less stable deposits	—	1,973	990	2,653	5,319
7	Wholesale funding:	—	5,838	4,965	27,143	30,183
8	Operational deposits	—	-	-	-	-
9	Other wholesale funding	—	5,838	4,965	27,143	30,183
10	Interdependent liabilities	—	-	-	-	-
11	Other liabilities:	335	-	-	79	79
12	NSFR derivative liabilities	335	—	—	—	—
13	All other liabilities and capital instruments not included in the above categories	—	-	-	79	79
14	**Total available stable funding (ASF)**	—	—	—	—	**39,210**
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	—	—	—	—	1,340
EU-15a	Assets encumbered for more than 12m in cover pool	—	-	-	24,091	20,478
16	Deposits held at other financial institutions for operational purposes	—	-	-	-	-
17	Performing loans and securities:	—	6,123	2,835	9,127	10,804
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut	—	2,356	-	-	-
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions	—	203	39	388	428
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, thereof:	—	2,991	2,480	7,166	9,931
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	—	74	68	167	1,123
22	Performing residential mortgages, thereof:	—	546	287	1,082	-
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	—	320	276	993	-
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	—	27	30	1,168	1,021
25	Interdependent assets	—	-	-	-	-
26	Other assets:	-	2,588	-	203	1,284
27	Physical traded commodities	—	—	—	-	-
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	—	-	-	-	-
29	NSFR derivative assets	—	-	-	-	-
30	NSFR derivative liabilities before deduction of variation margin posted	—	1,586	-	-	79
31	All other assets not included in the above categories	—	1,002	-	203	1,205
32	Off-balance sheet items	—	-	-	2,254	582
33	**Total RSF**	—	—	—	—	**34,488**
34	**Net stable funding ratio (%)**	—	—	—	—	**114**

EU LIQ2: Net Stable Funding Ratio (at quarter-end as at 31 March 2023)

Quarter-end figures as of 31.03.2023 All figures in € million, unless otherwise stated		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
		No maturity	< 6 months	6 months to < 1yr	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	3,217	-	-	521	3,738
2	Own funds	3,217	-	-	521	3,738
3	Other capital instruments	—	-	-	-	-
4	Retail deposits	—	1,900	1164	2,332	5,090
5	Stable deposits	—	-	-	-	-
6	Less stable deposits	—	1,900	1164	2,332	5,090
7	Wholesale funding:	—	8,614	2,903	30,370	32,340
8	Operational deposits	—	-	-	-	-
9	Other wholesale funding	—	8,614	2,903	30,370	32,340
10	Interdependent liabilities	—	-	-	-	-
11	Other liabilities:	288	-	-	96	96
12	NSFR derivative liabilities	288	—	—	—	—
13	All other liabilities and capital instruments not included in the above categories	—	-	-	96	96
14	**Total available stable funding (ASF)**	—	—	—	—	**41,264**
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	—	—	—	—	1,450
EU-15a	Assets encumbered for more than 12m in cover pool	—	-	-	24,804	21,083
16	Deposits held at other financial institutions for operational purposes	—	-	-	-	-
17	Performing loans and securities:	—	6,295	3,500	9,011	10,925
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut	—	4,023	-	-	548
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions	—	116	179	349	450
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, thereof:	—	1,826	3,052	6,928	9,388
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	—	105	81	100	1,074
22	Performing residential mortgages, thereof:	—	304	239	1,197	-
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	—	244	237	1,039	-
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	—	27	30	1,206	1,108
25	Interdependent assets	—	-	-	-	-
26	Other assets:	-	2,503	-	174	1,093
27	Physical traded commodities	—	—	—	-	-
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	—	-	-	-	-
29	NSFR derivative assets	—	-	-	-	-
30	NSFR derivative liabilities before deduction of variation margin posted	—	1,668	-	-	83
31	All other assets not included in the above categories	—	836	-	174	1,010
32	Off-balance sheet items	—	-	-	2,780	641
33	**Total RSF**	—	—	—	—	**35,191**
34	**Net stable funding ratio (%)**	—	—	—	—	**117**

Environmental, social and governance (ESG) risk

This chapter provides information on environmental, social and governance risks (ESG risks) in accordance with Article 449a of the CRR in conjunction with Article 435 of the CRR. In accordance with Article 499a of the CRR, large, capital markets-oriented institutions shall disclose information on ESG risks, including qualitative information on handling ESG risks (business model and strategy, corporate governance and management, risk management) and quantitative information on climate-related and environmental risks, physical risks, and above all transition risks arising from the adjustment process towards a lower-carbon and more environmentally sustainable economy. As stipulated in Commission Implementing Regulation (EU) 2022/2453, the scope of quantitative ESG disclosure obligations will be gradually increased up until 31 December 2024, with further qualitative and quantitative data such as disclosures on the Green Asset Ratio (GAR) being added from 31 December 2023 onwards.

ESG risk management

Definition

In accordance with the EBA Report on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms (EBA/REP/2021/18) and the ECB Guide on Climate-related and Environmental Risks, pbb Group defines environmental, social and governance (ESG) risk as the risk of adverse financial effects on the institution resulting from the current or expected impact of ESG factors on the Group's counterparties, or on its invested assets. ESG factors are environmental, social or governance aspects that could have a positive or negative impact on the financial performance or solvency of a company, sovereign or individual. ESG risk also encompasses negative financial, economic, and social impacts that could arise from the activities of the institution itself.

ESG factors can have adverse financial impacts via a large number of risk drivers. The term "risk drivers" refers to measures or circumstances as a result of which ESG factors can incur negative financial impacts. The causal chains that explain how these risk drivers affect institutions via their counterparties and invested assets are referred to as transmission channels.

ESG risks are a sub-category of non-financial risks. This classification reflects the impact of ESG factors that have traditionally been considered non-financial, such as greenhouse gas emissions, environmental footprint, human rights and equal opportunities, next to those factors that have traditionally been considered financial, such as profit, capital and costs.

Climate-related and environmental risks

pbb Group uses the concept of "environmental risks" as an umbrella term for both climate-related and environmental risks. Climate-related and environmental risks refer to risks of losses and negative impacts due to climate change and the destruction of the environment. Climate change is generally understood as being the change to the global climate caused by humans. Consequences of climate change include global warming (higher annual average temperature) as well as increased climate variability and extreme weather. The general understanding is that climate-related and environmental risks comprise the following two main risk drivers:

- Physical risk: physical risk refers to the financial impact of a changing climate. These impacts include more frequent extreme weather events and gradual changes in the climate, as well as environmental destruction. A physical risk is considered to be acute if it materialises due to extreme events, such as drought, flooding or storms. If it is the result of gradual changes, it is classified as chronic. Impacts can occur directly (e.g. as physical loss or damage or in the form of lower productivity) or indirectly, e.g. as a result of subsequent events such as supply chain disruptions.

> Transition risk: transition risk describes financial losses that can be incurred, directly or indirectly, as a result of the adjustment process towards a lower-carbon and more environmentally sustainable economy. This risk could materialise, for example, due to political measures adopted at very short notice to protect the climate and the environment, due to technical progress or due to changes in market sentiment and preferences. Environmental risks refer not only to climate action and climate change adaptation, but also to the protection and restoration of biodiversity and ecosystems.

Social risks

Social risks are defined as the risks of a negative financial impact on the institution resulting from current or future effects of social factors on its counterparties or invested assets. Negative effects can also result from social factors associated with the institution's own activities.

Governance risks

pbb Group defines governance risks as the risks of a negative financial impact on the institution resulting from current or future effects of governance factors on its counterparties or invested assets. Negative effects can also result from governance factors associated with the institution's own activities.

Identifying and assessing materiality

Materiality assessment

In order to allow for adequate consideration of ESG risks in the Bank's risk management processes, an identification and assessment process for ESG risk drivers has been established as a firm component of the annual risk inventory. Identifying and describing the possible transmission channels of potential ESG risk factors revealed the extent to which

> a company's economic and financial activities are affected (financial materiality / outside-in),

> or how a company's activities impact ESG factors (environmental and social materiality / inside-out)

and in what timeframe. The distinction between these two perspectives results from the application of the principle of "double materiality" and is to be applied for the assessment of materiality.

Overall, risk factors have been identified for environmental, social and governance aspects. The final step of the assessment includes an examination and evaluation of the impact of the potential ESG risk drivers identified on the individual risk types.

All relevant experts are involved in the individual steps of the assessment process, in particular those with lending and property valuation expertise, experts from HR, Legal and Compliance, as well as from Risk Management & Control.

Identification of material risk factors

The process for identifying material ESG risk factors consists of four consecutive steps and is described below.

- Step 1 "Categorised list of risk factors":

  The process starts with the list of possible risk factors. Both external sources (in particular the EU taxonomy, the ECB Guide on Climate-related and Environmental Risks, the EBA Report on Management and Supervision of ESG Risks, and the BaFin Guidance Notice on Dealing with Sustainability Risks) and internal sources (non-financial materiality analysis, expert opinions) were used to draw up the initial list.

- Step 2 "Transmission channels, impacts and time horizon":

  The next step involves analysing and recording possible transmission channels. One typical example of the transmission channel of a physical risk would be a flood resulting in damage to properties financed by the Bank's Real Estate Finance (REF) segment. Borrowers incur repair costs, rental losses, and business disruptions as a result. Overall, the net operating income of borrowers is reduced, their credit quality deteriorates and the value of properties serving as collateral is impaired. Some of these effects cannot be cushioned, even with good insurance coverage. For example, the LGD could increase due to a fall in property value, e.g. in the event that a whole region is affected by environmental or climate events, even if the property itself was not actually damaged. Furthermore, insurers themselves are subject to uncertainty, for example bankruptcy of the insurance or re-insurance company, waves of lawsuits, delays in disbursements, etc.

  When identifying transmission channels, lower credit quality, reduced collateral value or increased risk provisioning may impact the institution (and all its segments).

  Identification of the possible transmission channels of the individual risk factors reveals to which extent a borrower's economic and financial activities are affected (financial materiality / outside-in), or how a company's activities impact ESG factors (environmental and social materiality / inside-out). ESG factors can thus be quantified, implemented mitigating measures described, and the time horizon of possible impacts identified and recorded.

- Step 3 "Analysis and assessment of impact in terms of materiality":

  Based on the analysis of the transmission channels and possible effects, the latter are analysed and assessed. The aim is to identify whether the ESG risk factor being analysed has an impact on the parameters and benchmarks that are relevant to the institution (e.g. credit quality, property value, market share) and, as a result, on the Bank's risk profile. This determines the financial materiality. The process also looks at whether the risk factor is material from an environmental and social perspective.

- Step 4 "Relevance for the other risk types":

  The analysis of the transmission channels, as well as the relevant parameters and benchmarks, reveals which risk types are impacted. Default risk, market risk, business and strategic risk, liquidity and funding risk, and operational risk, including reputational risk, are often impacted.

The results of the risk inventory with regard to ESG materiality are recorded in a separate ESG assessment register and serve as the basis for the development of the management strategy, including the definition of the ESG risk appetite as part of the risk strategy, and as the starting point for scenario analyses and stress tests.

Materiality assessment results

pbb Group has summarised the climate-related and environmental physical and transition risks mentioned below, along with social and governance factors, and indicated the time horizon, to assess the materiality of ESG factors.

Type	Material	Non-material
Physical risk: Climate-related risk factors	**Acute:** floods, heavy precipitation, storms (including cyclones, hurricanes, and typhoons), tornados Time horizon: In the long term: heavy precipitation In the short and medium term: all the others Non-Core: forest fires, droughts, heat waves, landslides Time horizon: In the long term: droughts In the short and medium term: all the other factors **Chronic:** -	**Acute:** glacial lake outburst floods, avalanches, submergence of land, cold snaps / frost **Chronic:** changing wind patterns, coastal erosion, soil degradation, soil erosion, solifluction, changes in precipitation, changing precipitation patterns and types, rising sea levels, water resources stress, changes in temperature, heat stress, temperature fluctuations, permafrost thaw, precipitation and/or hydrological variability, ocean acidification, saline intrusion
Physical risk: Environmental factors	Pollution/contamination (only Real Estate Finance, REF) Time horizon: In the short and medium term Earthquakes Time horizon: in the long term Volcanic eruptions (Non-Core) Time horizon: short- and medium term	Loss of biodiversity / changes in the use of land / exploitation of organisms / invasive non-native species / habitat destruc-tion, production of hazardous waste / re-usability / recyclability, water consumption intensity of buildings or other objects financed, tsunamis
Transition risk factors	Energy efficiency, carbon footprint (scope 1, 2, 3 emissions) Time horizon: short- and medium term New sustainability-related and environmental regulations / carbon pricing (only Real Estate Finance), market sentiment (only Real Estate Finance), Time horizon: long-term for all factors	-
Social factors	-	Human and labour rights, business partner / client relationships, human rights of employees, social commitment, acces-sibility, client orientation, diversity and equality
Governance factors	Unfair communication, insufficient client data security and data protection (also material from an environmental and social perspective), integrity shortcomings (money laundering, terror-ist financing, etc.), external counterparty ESG risks, insufficient incorporation of external (ES)G risks in the business strategy/processes, insufficient incorporation of external (ES)G risks in internal governance, insufficient incorporation of external (ES)G risks in the risk management framework, insufficient compliance with disclosure of information rules and practices, and insufficient internal corporate governance regarding own ESG/compliance risks Time horizon: short- and medium term for all factors	-

Biodiversity and environmental risks

To assess biodiversity and environmental risks, we conducted a quantitative analysis of public environmental and biodiversity scores for clients' underlying sectors that are suitable for the entire portfolio. For the Real Estate Finance segment, satellite data on the type of land coverage at the locations of the properties financed in Europe was used to evaluate a potential contribution to the loss of biodiversity through changes in the use of land. All analyses were ultimately assessed by experts.

“Financially material” risk factors

All risk factors identified as material were classified as “financially material” (outside-in). Some risk factors – pollution and contamination, energy efficiency of properties, carbon footprint, general market sentiment, unfair communication, insufficient client data security and data protection, insufficient integrity (money laundering, terrorist financing, etc.) – were also recognised as being environmentally and socially material for the inside-out perspective.

Stress tests and scenario analyses were carried out to determine the effects of ESG risk factors on the traditional risk types such as default risk, operational risk and reputational risk. The scenario analyses conducted to determine the influence of ESG factors on operational and reputational risk regarded, for example, damage to the Group’s own physical assets and infrastructure by extreme weather events, potential accusations of greenwashing, and unfavourable public perception of the Bank relating to sustainability issues. Furthermore, pbb Group considers ESG risk factors in its monitoring and reporting.

Impact of ESG risk factors on default risk

Default risk is affected by physical and transition risks assessed as material and by the “external ESG risks of counterparties” governance factor.

Stress tests and scenario analyses were carried out to determine the effects of ESG risk factors on default risk. A macroeconomic stress test yielded particular insights into the impact of relevant climate threats and transition factors on default risk.

Impact of ESG risk factors on market risk

ESG risk is classified as non-material within market risk. There are currently no indications of any direct sustainability risks to pbb Group’s market risk position.

Impact of ESG risk factors on liquidity and funding risk

ESG risk is classified as non-material in the Internal Liquidity Adequacy Assessment Process (ILAAP). There are currently no indications of any direct explicit ESG or sustainability risks to pbb Group’s liquidity position. All material ESG risk aspects potentially relevant for liquidity risk have already been considered in the known prudential types of risk, such as default and market risk.

Impact of ESG risk factors on operational risk, including reputational risk and legal/liability risks

A bank’s business operations can generally be disrupted by damage to its property, by outages or failures of locations and data centres (infrastructure failure) due to extreme weather events (acute climate threats), and by environmental factors such as earthquakes or volcanic eruptions.

The scenario analyses conducted to determine the influence of ESG factors on operational and reputational risk regarded, for example, damage to the Group’s own physical assets and infrastructure by extreme weather events, potential accusations of greenwashing, and unfavourable public perception of the Bank relating to sustainability issues. Based on the quantitative and qualitative analyses concerning acute and chronic climate threats and environmental threats, the acute climate threats are classified as relevant for operational risk and included in the operational risk determination processes. Individual environmental factors may also impact reputational risk.

Acting in the capacity of a lender only, pbb Group is not subject to relevant original liability risks vis-à-vis third parties in the Real Estate Finance (REF) and Non-Core (NC) segments due to climate threats or environmental factors. In light of pbb Group’s business model, the same applies to potential credit default risks as a result of potential liability risks of REF clients vis-à-vis third parties in connection with climate threats or due to environmental factors. The Non-Core segment is not subject to additional credit default risks due to potential liability risks of clients vis-à-vis third parties in connection with climate threats or due to environmental factors.

The environmental risk factors of pollution, contamination, property energy efficiency, carbon footprint (scope 1, 2, 3 emissions) and market sentiment could potentially impact our clients' or the public's perception of pbb and thus the Bank's reputation, which is why they are considered relevant to reputational risk.

Governance factors are also relevant to operational risk and reputational risk. Potential legal/liability risks also exist for the following governance factors: "fair communication, client data security and data protection, insufficient integrity (money laundering, terrorist financing, etc.)", "insufficient compliance with disclosure of information rules and practices", and "insufficient internal corporate governance regarding own ESG/compliance risks".

pbb Group has laid down ethical and moral standards in its Code of Conduct to mitigate reputational risk and does not support business practices that could harm its reputation or give rise to the suspicion that the client is acting unlawfully or violating pbb Group's ethical and moral standards. The Group dissociates itself from any unlawful or other activities that might damage the Bank's reputation, and excludes the following activities, amongst others:

- Money laundering
- Terrorist financing
- Drug trafficking
- Illegal weapons trade
- Violation of human rights
- Human trafficking
- Smuggling of goods
- Bribery of government officials or other officials
- Granting and/or accepting undue benefits
- Tax offences
- Illegal or unauthorised use of property, including land ownership
- Market abuse, such as market manipulation or insider trading
- All forms of organised crime
- Environmental pollution, including excessive emissions, illegal waste disposal as well as any type of falsification of documents associated therewith
- Illegal use of labour, including forced labour and child labour

Impact of ESG risk factors on business and strategic risk

ESG risk drivers impact business and strategic risk by incurring negative deviations from planned income and expenses. Strategic ESG decisions, incorrect ESG planning assumptions or unexpected changes to the external ESG environment can also incur risks.

All three subsections of business and strategic risk include ESG factors with a material role:

- Strategic risk includes the risk of poor management decisions on ESG aspects. Collateral performance is a critical risk driver in the REF segment – for example, the energy efficiency of buildings gives rise to transition risk.

- Planning risk results from erroneous planning assumptions regarding ESG components within operative planning. This planning risk can be examined as to its materiality within a quantitative scenario, by taking into account the scheduled energy efficiency of collateral in new business. Assumptions made during the planning process, e.g. on the minimum energy efficiency requirements, could prove incorrect or insufficiently conservative. Hence, they involve planning risk, thereby incurring margin pressure on buildings that are especially energy-efficient. Once again, a realistic view would suggest that margins will deviate in such a way that this deviation is classified as material.

- Business environmental risk includes changing general market sentiment towards more or less sustainability, and the risk of structural rifts and fundamental changes to the Bank's environment from an ESG perspective, reflecting impacts on the new business margin via a similar transmission channel as strategic risk, which is why an equivalent materiality/scenario assessment applies.

pbb Group thus classifies the effect of ESG risks on business and strategic risk as material in both the economic (ECap ≥ € 1 million) and normative ICAAP perspective (potential impact can be seen upon the regulatory capital ratios, the MREL, the leverage ratio and/or the large exposure threshold).

Strategy

pbb Group aims to consider sustainability aspects within all its business activities, exploit ESG opportunities, and minimise the risk of negative consequences due to ESG risks. pbb Group wants to make an active contribution to the 1.5 degree target of the Paris Climate Agreement and has defined sustainable finance as being a central pillar of its ESG strategy, which promotes sustainability in the Bank’s core lending and funding business. To this end, pbb has not only developed the Green Loan and Green Bond Frameworks, including corresponding products, but has also successfully originated green loans and issued green securities.

From a risk perspective, the focus is clearly on the options for exerting influence at all stages in the commercial real estate finance value chain, starting with fundraising and ranging from deal origination, loan extension, and the entire loan coverage process to repayment or the realisation of collateral. Close links between Sales, Credit and Risk Management, plus the real estate experts, ensure that the principle of environmental sustainability of the properties to be financed is applied across pbb Group; it is an integral part of the lending decision process.

The analysis regarding sustainability within the meaning of the EU taxonomy alignment requirements (i.e. substantial contribution thus far to the “climate change mitigation” environmental objective, the “do no significant harm” principle regarding other environmental objectives, and the review of social minimum safeguards), or rather the analysis of additional environmental criteria defined in line with the pbb Green Scoring Model with its three sets of criteria (energy efficiency, green building certificates, and further sustainability criteria, such as use of green electricity), has been established as a firm component in the lending process for new business. In addition, pbb Group uses a proprietary decarbonisation tool based on the Carbon Risk Real Estate Monitor (CRREM) tool for its risk and opportunity analysis within the lending process, concentrating on the possibility of transforming collateral into a sustainable building; the potential of such a transformation is also discussed with clients.

pbb Group collected data for larger part of the credit portfolio within new and existing business to systematically retrieve and analyse sustainability information (e.g. e-scoring, CRREM pathway analysis). The response and evaluation rate by mid-2023 was 71.5%; data collection is being continued. pbb Group is thus increasingly gaining a better overview of the sustainability of its credit portfolio and associated risks, which can then be used to manage ESG risks over the long term.

Based on the insights gained from the materiality analysis and risk inventory, the impact of climate-related risks for pbb Group was analysed using various scenarios.

- In order to systematically examine the potential vulnerability of pbb’s portfolio and capital position with regard to medium-term transition climate-related risks, a corresponding transition scenario was defined, fully calculated and analysed within the normative and economic ICAAP perspectives, and then firmly integrated into the stress test programme.
- To expand the focus to include potential events that could occur over a longer horizon, a long-term transition scenario was introduced that looks at the period up to 2050 under different climate transition paths.
- The impact of acute physical risks was analysed in a dedicated scenario.

The medium-term transition climate scenario is part of the ICAAP management approach and the internal definition of adequate capitalisation. Both other scenarios were analysed and discussed by the Management Board.

ESG factors are integrated in the ILAAP, and are regularly examined and evaluated there. In addition to a qualitative assessment, potential effects on pbb Group’s liquidity position are quantified as part of the short-term transition climate risk scenario.

Overall, pbb Group aims to sustainably place ESG at the centre of its activities by continuing to integrate ESG into its processes, product range and corporate culture; examples include the governance and project structure implemented within pbb, and new products such as green bonds or green loans. pbb aims to reinforce market perception of the Bank as a proactive force in the ESG space. Regarding the Products & Portfolio field of implementation, pbb Group aims to expand and reinforce its positioning as a partner for the transformation of its clients, and to achieve its strategic objective of sustainable funding and financing. Both are addressed by the use and development of ESG products and active management using ESG-related KPIs.

Sustainable development targets

pbb Group is also expressly committed to the Paris Climate Agreement – whose overall goal is to limit global warming to well below 2 degrees Celsius, preferably to 1.5 degrees (compared to pre-industrial levels) – and strives to align its business operations and credit portfolios with the goals of the Agreement. To this end, pbb has initially set itself a fundamental long-term climate target to achieve alignment to the 1.5-degree target by 2050. A corresponding climate management approach with corresponding milestones will be established on this basis going forward.

pbb has defined specific indicators and targets for an active and strategic management of its assets. The Bank is planning that assets eligible for green loan financing will account for 30% of the REF portfolio (based on the requirements set out in pbb's Green Loan Framework) by 2026. Another management indicator is the new business volume generated with green loans, which is geared towards leveraging the potential of financing the transformation of non-green to green assets in new and existing business; the targets and management approach have already been established.

pbb is also committed to the 17 UN Sustainable Development Goals (SDGs), three of which were identified as being particularly relevant:

- Affordable and clean energy (SDG 7) – providing funding to increase the energy efficiency of buildings
- Sustainable cities and communities (SDG 11) – providing funding for new housing, being one of the leading European specialist banks for real estate finance
- Climate action (SDG 13) – actively contributing to the decarbonisation of the real estate sector and reducing pbb's own environmental footprint

In addition, pbb has been a participant of the UN Global Compact since February 2022, committing itself to the ten universal principles in the areas of human rights, labour, environmental protection and anti-corruption. As part of this commitment, pbb published its first Communication of Progress in April 2022.

pbb Group is also constantly considering other external voluntary commitments.

Governance risks related to counterparties

Aside from actively managing the existing portfolio, pbb Group also wants to learn more about the clients' perspective. To this end, pbb has performed client talks to analyse how its clients perceive ESG in general, the transformation pressure related to it, and the resulting business opportunities. This has also helped to make pbb's existing ESG expertise and products more visible. Based on these client talks, pbb has established a systematic client dialogue, including suitable exchange formats to enhance the Bank's presence, e.g. via an ESG network, and to gain additional insights into clients' needs.

Green Bond and Green Loan Framework

To take sustainability aspects into account to a higher degree when granting loans, pbb has been systematically gathering data on various sustainability criteria pertaining to its financed properties since May 2020. These criteria include energy consumption, Green Building certificates, energy performance certificates and additional sustainability criteria. In the context of granting individual loans, pbb developed internal analytical processes and analytical tools to identify ESG risks.

Green Bond Framework

On this basis, pbb has established a Green Bond Framework and aims to increasingly raise funding via green bonds. In January 2021, pbb successfully placed its first Green Bond on the market, and has placed further issues since then. By issuing green bonds, pbb Group enables investors to make targeted investments in sustainable capital market products.

With an outstanding volume of around € 3.13 billion as at 30 June 2023, pbb is among the most active issuers of green bonds.

Green Loan Framework

In addition, pbb Group has developed a Green Loan Framework in accordance with the LMA Green Loan Principles and taking the EU taxonomy into account for the issuance of green loans.

pbb has been offering green loans as a new credit product since the fourth quarter of 2021. This includes loans to finance existing green buildings, development financing for green buildings as well as transformation financing for existing properties to convert them into green buildings. Since there is as yet no established standard for green loans on the market, and most instruments are aligned with the LMA Green Loan Principles, pbb has established its own Green Loan Framework based on two elements: a standalone sustainability scoring model or the requirements set out in the EU taxonomy (i.e. substantial contribution thus far to the “climate change mitigation” environmental objectives; the “do no significant harm” principle regarding other environmental objectives). The pbb scoring model allows for the sustainability assessment of real estate using specific criteria; from a defined score upwards, real estate qualifies for green lending. As an alternative, pbb grants green loans for buildings compliant with the requirements of the EU taxonomy set out above.

The volume of green loans which pbb has issued since the fourth quarter of 2021 rose to around € 1.6 billion by the end of the first half of 2023. pbb is planning that assets eligible for green loan financing will account for 30% of the REF portfolio (based on the requirements set out in pbb’s Green Loan Framework) by 2026. As at 30 June 2023, their share amounted to 28.3% and 20.2% in the analysed REF portfolio and the total REF portfolio, respectively.

pbb’s green loan scoring model

pbb’s green loan scoring model takes three dimensions into account: the energy efficiency of a building, building certifications, and further sustainability factors such as soil surface sealing, the type of heating, and the use of green electricity. In particular, the factors of this category are based on the “do no significant harm” principle embedded in the EU taxonomy.

pbb deliberately includes more than just the energy efficiency of a building as a prerequisite for green loan-eligibility. Low energy consumption is just one of various requirements. Green building certificates considered include BNB, BREEAM, DGNB, HQE and LEED.

Project selection within pbb Group

Assets, traditional investment financings, financing of modernisation / renovation projects for existing buildings, and construction financings can qualify for pbb’s green loan financing or funding.

When assessing whether a project/building is eligible for green financing, pbb also considers publications by the EU Technical Expert Group on Sustainable Finance and expert opinions for individual buildings within the Bank's due diligence process.

Projects/buildings whose primary use is the production of weapons or pesticides, nuclear energy, fossil fuels, pornography or sex work are generally not eligible for pbb's green financing.

Once a project/building is deemed eligible for green financing by pbb, the Bank's Credit Committee evaluates potential approval for the project/building based on a dedicated green lending process, taking into account all other parameters relevant to pbb's credit risk within the scope of the respective loan.

Organisation

pbb Group has been systematically integrating ESG into its governance structures. An ESG Committee, which deals with ESG aspects and ESG risks throughout pbb Group, was established in July 2021. The ESG Committee comprises the entire Management Board and the Heads of Communications, Compliance, Human Resources, Information Technology, Property Analysis & Valuation, Credit Risk Management, Treasury, Risk Management & Control, Loan Markets, Sales Germany, plus the members of the ESG Programme Management team as well as project managers of the various ESG sub-project streams Environment (E), E(SG) Risks, Governance (G), and Social (S) and of the ESG Communications and ESG Disclosure sub-project streams. The ESG Committee is primarily responsible for developing an ESG business and risk strategy, and for monitoring the corresponding implementation measures within pbb Group. The Committee develops and decides on ESG targets, and the measures required to achieve them.

Risk management organisation

<table>
<tr><td colspan="9">Risk Management and Liquidity Strategy Committee (RLA) of the Supervisory Board</td></tr>
<tr><td colspan="9">Management Board</td></tr>
<tr><td colspan="5">Risk Committee (RC)</td><td rowspan="2">Asset and Liability Committee (ALCO)</td><td rowspan="2">Legal and Regulatory Risk Committee [1] (LRRC)</td><td rowspan="2">Outsourcing Committee (OC)</td><td rowspan="2">Environmental, Social and Governance (ESG) Committee</td></tr>
<tr><td>Credit Committee</td><td>Watchlist Committee</td><td>Risk Provisioning Committee</td><td>New Product Process Committee</td><td>Stress Test Committee</td></tr>
</table>

[1] Reporting via Compliance

pbb set up an ESG programme (ESG@pbb) in 2021, which covers all three ESG dimensions. This programme addresses all ESG topics relevant to pbb – strategy, environment, social aspects and good governance, as well as ESG risk, data management, communication and reporting – and is based on a governance structure with clearly defined responsibilities and committees (ESG Committee and Green Financing Committee).

ESG Programme Management

The Management Board established an ESG Programme Management team in July 2021, which is responsible for supporting the ESG Committee and preparing resolutions to be passed by the ESG Committee. Progress in the programme is reported to the Supervisory Board twice a year. The remit of the ESG programme management team includes, in particular:

> the central, ongoing, holistic identification of all ESG topics, as well as the statutory/regulatory requirements and the expectations of investors, clients and other stakeholders that emerge on the market or are consistent with best practice;

> the central overall coordination, across all divisions, of pbb's ESG activities and measures as adopted by the ESG Committee;

> defining, developing and refining a Group-wide ESG strategy, taking ESG risks, opportunities and fundamental regulatory/statutory requirements into account;

> central management of the development of an overarching ESG data pool; and

> the central coordination of regulatory enquiries on ESG issues (e.g. submitted by the ECB) and corresponding reports.

pbb Group is concentrating on ESG operationalisation, i.e. the creation of an integrated organisational ESG model, thereby ensuring that ESG aspects are advanced over the long term and independently of specific projects. This model focuses on synergies which emerge when working on ESG topics, the smooth integration of ESG-related tasks into standard processes and the acquisition of specific ESG know-how in the various departments. In this context, a long-term ESG governance objective has been developed, which is being implemented step by step.

As part of the ESG operationalisation process, pbb will continue passing on ESG topics already developed to the relevant divisions for ongoing processing, and integrate them into standard processes. This saves programme resources, or frees them up for dealing with newly arising change topics. In addition, pbb has established an ESG Office, which is to manage cross-divisional ESG tasks and coordinate divisional tasks going forward. Its responsibilities include cross-divisional content-related questions and committee support, but also the long-term monitoring of ESG issues, KPI planning and management, and establishing new project structures for newly-arising change topics.

Risk reporting

Risk indicator reporting is performed within the scope of the Key Risk Indicator (KRI) report for non-financial risks, to the Risk Committee, to Management Board and division heads on a quarterly basis. In addition, existing sustainability benchmarks in the form of external sustainability ratings are an integral part of regular internal reporting to the Bank's management.

Risk quantification

ESG risk as a driver of traditional risk types is a firm component of the annual risk inventory and integrated into the general risk quantification process. The objective of this risk inventory is to establish a full risk profile which identifies any and all risks, provides an assessment as to whether these risks are material for pbb Group’s capital and liquidity resources, and scans them as to potential risk concentrations. To the extent possible, risks are quantified using applicable risk models or other methods. To adequately monitor ESG risks, pbb is working on integrating the various ESG risk factors into the relevant types of risk, including monitoring, reporting and quantification. The Bank is also working on refining climate-specific stress tests and scenario analyses.

Risk control and risk management

pbb Group aims to consider sustainability aspects within all its business activities, exploit ESG opportunities, and minimise the risk of negative consequences due to ESG risks. ESG risks are managed in line with the Three Lines of Defence (“3LoD”) principle, whereby risk owners in the various divisions which are particularly close to clients or the general public (Sales, PAV, CRM, Communications, Finance, Treasury, and the Corporate Office) form the first line of defence. The second line of defence comprises Risk Management & Control and Compliance, together with Legal, Human Resources, and IT. Group Internal Audit (GIA) is the third line of defence.

Remuneration Policy

pbb Group promotes practices related to its climate and environmental as well as social risk approach in the context of variable remuneration, by also linking variable remuneration to the achievement of the respective ESG targets.

In line with the requirements set out in the remuneration strategy, pbb Group annually determines overarching strategic priorities for variable remuneration which are closely linked to the material institutional targets and the plans derived from the business and risk strategy. The Management Board also establishes overall corporate strategic priorities from the environmental, social and governance (ESG) field. In particular, this serves to promote practices related to pbb’s climate and environmental as well as social risk approach. The divisional targets are based on the Corporate Strategic Priorities and communicated to the relevant staff at the beginning of the year. At the individual level, every employee is provided with an annual target agreement comprising quantitative and qualitative targets for the current financial year. The individual targets are aligned with the divisional targets, and thus fundamentally also with the Corporate Strategic Priorities.

The environmental and climate-related ESG objectives for 2023 focus on scaling up the Bank’s activities in the field of green investments and transition loans, identifying candidates for a green upgrade in the real estate portfolio, and active transformation support. Other objectives for 2023 include further refining and implementing the ESG lending and risk strategy and the ESG operationalisation plan, alongside various topics related to the identification, retrieval and documentation of ESG data for the portfolio, and preparing the Bank's reporting with regard to the EU Taxonomy, Pillar 3, and CRSD. In addition, pbb has again been addressing key social sustainability objectives such as the recruitment, promotion, and retention of (young) talent, as well as the promotion of diversity, with a focus on advancing women. These were complemented by targets regarding time and cost invested in staff training.

Risk monitoring

To monitor the various aspects of ESG risk in its portfolio, pbb Group has enhanced its monitoring of non-financial indicators, also defining a strategic ESG KPI set in the process, which comprises five indicators reflecting the environmental and climate-related aspects of the portfolio. Said indicators mainly aim at the continued promotion of transparency on the status quo, the refinement of the internal reporting system, along with related, targeted internal ESG management. The set of KPIs and the defined targets are subject to an annual evaluation, ensuring a permanent focus on the Bank's sustainability roadmap.

Progress on KPIs is reported in a semi-annual management report and the KRI report for non-financial risks, and supplemented by other climate and environmental risk-specific information on the portfolio in the quarterly Group Risk Report.

Monitoring and management of external climate and environmental risk currently focuses on the aspects of avoidance and adaptation to climate change associated with the properties pbb Group finances. Both physical and transition risks are taken into account. The “E” criteria include, for example, energy consumption and green building certifications.

Monitoring and management of external social and governance risks currently focuses on the prevention of money laundering and terrorist financing, compliance with financial sanctions and embargoes, and the prevention of fraud or other criminal acts, particularly the prevention of corruption. pbb Group has put appropriate safeguards in place in this respect and, in addition to a Compliance Guideline and the Code of Conduct, has issued various other internal guidelines, instructions and process descriptions. Compliance is responsible for ensuring due and proper adherence to these requirements. As an investment service provider, pbb Group also observes a whole range of regulations and requirements, in particular to ensure appropriate client/investor protection and, consequently, also to safeguard its own reputation.

Specific risk indicators have been defined and assigned to the individual components for monitoring the various aspects of the Group’s own ESG risk. Based on a traffic light system, amber and red thresholds have been defined for these risk indicators and form the basis for compliance with the Bank’s own targets. As such, an eye is kept on employees’ use of resources (e.g. electricity, paper, company cars) and on business travel (e.g. train and air travel) to monitor the environmental footprint, whilst indicators on diversity, operational safety, and personnel development have been established to monitor the social risk. “Governance risk” is monitored using compliance-relevant cases.

Adherence to the self-imposed internal targets can be monitored by the amber and red threshold values determined for the risk indicators. Both the risk indicators and the internal targets for the various aspects of ESG risk are continuously developed.

Hedging and mitigating risks

pbb Group’s sustainability strategy is designed to consider sustainability aspects throughout the Group’s business activities, exploit ESG opportunities, and minimise sustainability risks at the same time.

From a risk perspective, the focus is on the options for exerting influence at all stages in the commercial real estate finance value chain, starting with fundraising and ranging from origination and the entire loan coverage process to repayment or the realisation of collateral. Within pbb Group, the principle of environmental sustainability of the properties to be financed is based on close links between Sales, Credit and Risk Management, as well as expert appraisers, and is an integral part of the lending decision process.

When it comes to financing commercial real estate or public infrastructure projects, ESG aspects play a key role alongside commercial aspects. Taking these ESG aspects into account not only aims at making a positive contribution to the overarching sustainability targets, but also helps avoid ESG/sustainability risks.

pbb Group defines exclusion criteria for financings baed on social and governance aspects. Within the scope of new business origination, comparing a property’s climate pathway with the pathway towards the strategic carbon neutrality goal has become an integral component of the lending process. For new office real estate financings, deviations from the green status already require explicit Management Board approval.

Opportunities

ESG risks generally also offer potential opportunities related to sector-specific aspects – especially by offering sustainable financing solutions (green loans), expanding activities as a transformation financier (green capex) as well as issuing green bonds. Sustainable financing solutions decrease the probability of loan defaults, increase the value of the collateral furnished and reduce potential reputational damage.

pbb acquired 35% of shares in newly-established ECO Estate GmbH, a company advising enterprises regarding the environmental, social and governance (ESG) aspects of real estate, in May 2023. With this move, pbb intends to expand its business model by including a green consultancy offering. The idea is to provide consultancy services and financing solutions to pbb's clients and other real estate investors, to help them prepare holistic solutions for the sustainable transformation of their properties. Regarding the consultancy offering, pbb cooperates with real estate developers Groß & Partner, a long-standing market player with proven expertise in developing, planning and implementing large projects and excellent "E" expertise. Groß & Partner will be in charge of the operating business in this respect.

Moreover, the qualifications and satisfaction of our employees are the main foundation for the quality of their work, and thus for the Company's potential.

The sustainability strategy is essentially an integral part of the business strategy and is designed to continue to reinforce ESG as a core brand element, minimise sustainability risks, whilst making use of the different opportunities that arise.

Climate-related and environmental risk

Quantitative information on climate-related and environmental risk

Information on climate-related and environmental risk is disclosed in tables EU ESG1, EU ESG2, EU ESG5, and EU ESG10 below, pursuant to Article 449a of the CRR.

Table EU ESG4 is not relevant for pbb Group as pbb Group had no exposure to the top 20 most carbon-intensive corporations worldwide as at the reporting date.

Table EU ESG1 presents a breakdown of exposures to non-financial corporations operating in sectors (using NACE codes) that highly contribute to climate change and are consequently more exposed to the risks that may arise from the transition to a low-carbon and climate resilient economy ("transition risk"). The table also contains information on the quality of these exposures and their maturity buckets/residual terms. Sectors that contribute strongly to climate change as defined in Recital 6 of Commission Delegated Regulation (EU) 2020/1818 include oil, gas, mining, and transport.

Table EU ESG2 presents transition risk for loans and advances collateralised with commercial and residential immovable property and of repossessed real estate collateral, including information on the collateral's specific level of energy consumption (measured in kWh/m^2), or in terms of the Energy Performance Certificate ("EPC") label. These exposures are broken down by location of the real estate collateral (EU/non-EU).

Table EU ESG5 presents information on exposures to non-financial corporations, on loans collateralised with immovable property and on repossessed real estate collateral exposed to (chronic and acute) climate-related physical risk. The table also contains information on the credit quality of these exposures and their maturity buckets/residual terms. In line with the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"), counterparties are broken down by sector of economic activity (using NACE codes) and geography. Regarding geography (i.e. areas prone to climate-related hazards), pbb Group's information in Table EU ESG5 refers to Germany and all other countries combined.

Table EU ESG10 presents an overview of loans and bonds that support the transition to sustainable growth and a climate-neutral economy. It covers additional climate protection measures and activities that pbb Group has taken to mitigate climate-related risks (transition and physical risks). Given a lack of energy level benchmarks, it has not been possible to make a conclusive assessment of the alignment of the green loans included in this table with the EU Taxonomy. However, such instruments support our counterparties' transition and climate change adaptation. The table covers all exposures based on pbb's Green Loan Framework that are aimed at mitigating climate-related risks, including those that might not be aligned with the EU Taxonomy criteria.

EU ESG1: Banking book – Indicators of potential climate change transition risk: Credit quality of exposures by sector, emissions and residual maturity

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Gross carrying amount [2]					**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**			**GHG financed emissions (scope 1, scope 2 and scope 3 emissions of the counter-party) (in tons of CO_2 equivalent)** [5]		**GHG emis-sions (column i)** [6]	**Remaining maturity**				
	Sector/subsector [1]		**thereof exposures towards companies excluded from EU Paris-aligned Benchmarks** [3]	**thereof environ-mentally sustaina-ble (CCM)** [4]	**thereof stage 2 expo-sures**	**thereof non-per-forming expo-sures**		**thereof Stage 2 expo-sures**	**thereof non-per-forming expo-sures**		**thereof Scope 3 financed emis-sions**		**<= 5 years**	**> 5 year <= 10 years**	**> 10 year <= 20 years**	**> 20 years**	**Average weighted maturity**
	All figures in € million, unless otherwise stated																
1	**Exposures towards sectors that highly contribute to climate change***	**29,563**	**0**	**-**	**7,324**	**1,201**	**-392**	**-114**	**-227**	**-**	**-**	**-**	**23,522**	**4,981**	**948**	**113**	**3**
2	A - Agriculture, forestry and fishing	0	0	-	0	0	0	0	0	-	-	-	0	0	0	0	0
3	B - Mining and quarrying	0	0	-	0	0	0	0	0	-	-	-	0	0	0	0	0
4	B.05 - Mining of coal and lignite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	B.06 - Extraction of crude petroleum and natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	B.07 - Mining of metal ores	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	B.08 - Other mining and quarrying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	B.09 - Mining support service activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	C - Manufacturing	49	0	-	0	0	0	0	0	-	-	-	0	49	0	0	9
10	C.10 - Manufacture of food products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	C.11 - Manufacture of beverages	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	C.12 - Manufacture of tobacco products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	C.13 - Manufacture of textiles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	C.14 - Manufacture of wearing apparel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	C.15 - Manufacture of leather and related products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	C.16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	C.17 - Manufacture of pulp, paper and paperboard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	C.18 - Printing and service activities related to printing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	C.19 - Manufacture of coke oven products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	C.20 - Production of chemicals	49	-	-	0	-	-	-	-	-	-	-	-	49	-	-	9
21	C.21 - Manufacture of pharmaceutical preparations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	C.22 - Manufacture of rubber products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Gross carrying amount [2]					**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**			**GHG financed emissions (scope 1, scope 2 and scope 3 emissions of the counterparty) (in tons of CO_2 equivalent) [5]**		**GHG emissions (column i) [6]**	**Remaining maturity**				
	Sector/subsector [1]		**thereof exposures towards companies excluded from EU Paris-aligned Benchmarks [3]**	**thereof environmentally sustainable (CCM) [4]**	**thereof stage 2 exposures**	**thereof non-performing exposures**		**thereof Stage 2 exposures**	**thereof non-performing exposures**		**thereof Scope 3 financed emissions**		**<= 5 years**	**> 5 year <= 10 years**	**> 10 year <= 20 years**	**> 20 years**	**Average weighted maturity**
All figures in € million, unless otherwise stated																	
23	C.23 - Manufacture of other non-metallic mineral products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	C.24 - Manufacture of basic metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	C.25 - Manufacture of fabricated metal products, except machinery and equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	C.26 - Manufacture of computer, electronic and optical products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	C.27 - Manufacture of electrical equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	C.28 - Manufacture of machinery and equipment n.e.c.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	C.30 - Manufacture of other transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	C.31 - Manufacture of furniture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	C.32 - Other manufacturing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	C.33 - Repair and installation of machinery and equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	D - Electricity, gas, steam and air conditioning supply	33	0	-	0	0	0	0	0	-	-	-	9	23	-	-	6
35	D35.1 - Electric power generation, transmission and distribution	33	-	-	-	-	-	-	-	-	-	-	9	23	-	-	6
36	D35.11 - Production of electricity	33	-	-	-	-	-	-	-	-	-	-	9	23	-	-	6
37	D35.2 - Manufacture of gas; distribution of gaseous fuels through mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	D35.3 - Steam and air conditioning supply	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	E - Water supply; sewerage, waste management and remediation activities	133	0	-	0	0	0	0	0	-	-	-	82	-	51	-	5
40	F - Construction	336	0	-	76	0	0	0	0	-	-	-	299	36	-	-	2
41	F.41 - Construction of buildings	335	-	-	76	-	-	-	-	-	-	-	299	36	-	-	2
42	F.42 - Civil engineering	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	F.43 - Specialised construction activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	102	0	-	0	0	0	0	0	-	-	-	101	-	-	1	1

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Gross carrying amount [2]					**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**			**GHG financed emissions (scope 1, scope 2 and scope 3 emissions of the counter-party) (in tons of CO_2 equivalent) [5]**		**GHG emis-sions (column i) [6]**	**Remaining maturity**				
	Sector/subsector [1]		**thereof exposures towards companies excluded from EU Paris-aligned Benchmarks [3]**	**thereof environ-mentally sustaina-ble (CCM) [4]**	**thereof stage 2 expo-sures**	**thereof non-per-forming expo-sures**		**thereof Stage 2 expo-sures**	**thereof non-per-forming expo-sures**		**thereof Scope 3 financed emis-sions**		**<= 5 years**	**> 5 year <= 10 years**	**> 10 year <= 20 years**	**> 20 years**	**Average weighted maturity**
All figures in € million, unless otherwise stated																	
45	H - Transportation and storage	60	0	-	31	22	-2	-1	-1	-	-	-	22	31	7	-	6
46	H.49 - Land transport and transport via pipelines	29	-	-	-	22	-1	-	-1	-	-	-	22	,	7	-	7
47	H.50 - Water transport	-	-	-	-	-	-	-	-	-	-	-	-	,	-	-	-
48	H.51 - Air transport	-	-	-	-	-	-	-	-	-	-	-	-	,	-	-	-
49	H.52 - Warehousing and support activities for transportation	31	-	-	31	-	-1	-1	-	-	-	-	-	31	-	-	6
50	H.53 - Postal and courier activities	-	-	-	-	-	-	-	-	-	-	-	-	,	-	-	-
51	I - Accommodation and food service activities	134	0	-	38	-	-1	-1	-	-	-	-	1	133	-	-	7
52	L - Real estate activities	28,717	0	-	7,178	1,179	-389	-112	-225	-	-	-	23,008	4,708	889	112	3
53	**Exposures towards sectors other than those that highly con-tribute to climate change**	**737**	**0**	**-**	**88**	**0**	**0**	**0**	**0**	—	—	—	**181**	**58**	**343**	**155**	**13**
54	K - Financial and insurance activities [7]	-	-	-	-	-	-	-	-	—	—	—	-	-	-	-	-
55	Exposures to other sectors (NACE codes J, M - U)	737	-	-	88	-	-	-	-	—	—	—	181	58	343	155	13
56	**Total**	**30,300**	**0**	**-**	**7,412**	**1,201**	**-393**	**-114**	**-227**	**-**	**-**	**-**	**23,703**	**5,039**	**1,291**	**268**	**3**

[1] Classification according to the counterparty's NACE code is based on the main business activity of the direct counterparty (e.g. the direct borrower, counterparty or securities issuer) or that of the most relevant or significant borrower. The NACE codes are in line with the NACE Regulation: statistical classification of economic activities in the European Community.

[2] Gross carrying amount – before impairments on financial assets, after write-downs, before application of credit risk mitigation techniques – of loans and advances, debt securities and equity instruments in the banking book, i.e. excluding financial assets held for trading or held for sale.

[3] Exposures to companies excluded from EU Paris-aligned benchmarks as specified in Article 12(1), points (d) to (g) and Article 12 (2) of Delegated Regulation (EU) 2020/1818.

[4] Column c: EBA/ITS/2022/01 asks institutions to start disclosing this information (if not yet available) as at 31 December 2023 (for exposures included in the Green Asset Ratio's numerator) or 31 December 2024 (for exposures included in the Banking Book Taxonomy Alignment Ratio's numerator, but not the Green Asset Ratio's numerator).

[5] Columns i to k: EBA/ITS/2022/01 asks institutions to start disclosing this information (if not yet available) as at 30 June 2024.

[6] Greenhouse gas ("GHG") emissions. Column k shows the percentage share in the portfolio for which information on the counterparties' scope 1/2/3 GHG emission data is already available.

[7] Line 54 (sector K) includes exposures towards non-financial corporations (FINREP definition); it does not include exposures to credit institutions and other financial corporations.

[8] The amount of € 7,178 million in the above table EU ESG1, line 52, column d has been corrected. The original publication of the disclosure report as of 30 June 2023, dated September 6, 2023, has been replaced accordingly.

EU ESG2: Banking book – Indicators of potential climate change transition risk: Loans collateralised by immovable property – Energy efficiency of the collateral

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Total gross carrying amount [1]															
			Level of energy efficiency [2] (EP score in kWh/m² of collateral)						**Level of energy efficiency (EPC label of collateral) [3]**							**Without EPC label of collateral**	
	Counterparty sector		**0; <= 100**	**> 100; <= 200**	**> 200; <= 300**	**> 300; <= 400**	**> 400; <= 500**	**> 500**	**A**	**B**	**C**	**D**	**E**	**F**	**G**		**thereof level of energy efficiency estimated [4]**
All figures in € million, unless otherwise stated																	
1	**Total EU area**	**22,969**	**8,228**	**10,498**	**3,016**	**890**	**178**	**159**	**468**	**772**	**832**	**1,034**	**424**	**258**	**556**	**18,626**	**41%**
2	thereof Loans collateralised by commercial immovable property	18,857	6,828	7,878	2,933	881	178	159	436	638	612	785	305	198	524	15,359	36%
3	thereof Loans collateralised by residential immovable property	4,112	1,400	2,619	83	9	-	-	32	134	219	249	120	59	32	3,267	60%
4	thereof Collateral obtained by taking possession: residential and commercial immovable properties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	thereof Level of energy efficiency (EP score in kWh/m² of collateral) estimated	7,554	2,501	3,954	1,099	-	-	-	——	——	——	——	——	——	——	7,554	100%
6	**Total non-EU area**	**6,940**	**1,419**	**2,330**	**2,047**	**397**	**321**	**425**	**157**	**677**	**167**	**195**	**110**	**-**	**-**	**5,634**	**59%**
7	thereof Loans collateralised by commercial immovable property	5,982	1,047	1,942	2,047	354	166	425	157	422	167	195	110	-	-	4,932	57%
8	thereof Loans collateralised by residential immovable property	958	371	388	-	43	155	-	-	255	-	-	-	-	-	703	74%
9	thereof Collateral obtained by taking possession: residential and commercial immovable properties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	thereof Level of energy efficiency (EP score in kWh/m² of collateral) estimated	3,333	506	1,273	1,554	-	-	-	——	——	——	——	——	——	——	3,333	100%

[1] Gross carrying amount of loans and advances collateralised by immovable property before impairments on financial assets, after write-downs, before application of credit risk mitigation techniques.

[2] Columns b to g: Exposures by energy efficiency, based on the specific energy consumption of the collateral measured in kWh/m². Properties with EPC label whose specific energy consumption (measured in kWh/m²) was not known were classified based on their EPC label.

[3] Columns h to n: Exposures by EPC label of the collateral (where a mapping to the EPC label exists).

[4] Column p: Share of column o for which the collateral's energy efficiency was indicated based on estimates (energy consumption in kWh/m²), reported as a percentage and in line with the EBA's Q&A 2022-6625.

EU ESG5: Banking book – Indicators of potential climate change physical risk: Exposures subject to physical risk (Germany)

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
		Gross carrying amount [1]													
			thereof exposures sensitive to impact from climate change physical events												
	Variable: Geographical area subject to climate change physical risk - acute and chronic events [2] [3]		**Breakdown by maturity bucket**					**thereof exposures sensitive to impact from chronic climate change events**	**thereof exposures sensitive to impact from acute climate change events**	**thereof exposures sensitive to impact both from chronic and acute climate change events**	**thereof Stage 2 exposures**	**thereof non-performing exposures**	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**		
	Germany														
All figures in € million, unless otherwise stated			**<= 5 years**	**> 5 year <= 10 years**	**> 10 year <= 20 years**	**> 20 years [4]**	**Average weighted maturity**							**thereof Stage 2 exposures**	**thereof non-performing exposures**
1	A - Agriculture, forestry and fishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	B - Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	C - Manufacturing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	D - Electricity, gas, steam and air conditioning supply	4	2	3	-	-	6	-	4	-	-	-	-	-	-
5	E - Water supply; sewerage, waste management and remediation activities	70	70	-	-	-	1	-	70	-	-	-	-	-	-
6	F - Construction	245	-	-	-	-	4	-	-	-	-	-	-	-	-
7	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	2	-	-	-	1	27	-	1	-	-	-	-	-	-
8	H - Transportation and storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	L - Real estate activities	9,091	754	470	133	20	6	-	1,184	192	135	-	2	-	-
10	Loans collateralised by residential immovable property	3,456	468	232	4	12	5	-	656	59	-	-	-	-	-
11	Loans collateralised by commercial immovable property	5,888	264	227	127	1	6	-	485	133	135	-	1	-	-
12	Repossessed collaterals	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Other relevant sectors (breakdown below where relevant)	134	-	-	-	-	4	-	-	-	-	-	-	-	-

[1] Gross carrying amount – before impairments on financial assets, after write-downs, before application of credit risk mitigation techniques – of loans and advances, debt securities and equity instruments in the banking book, i.e. excluding financial assets held for trading or held for sale.
[2] Classification according to the counterparty's NACE code is based on the main business activity of the direct counterparty (e.g. the direct borrower, counterparty or securities issuer) or that of the most relevant or significant borrower. The NACE codes are in line with the NACE Regulation: statistical classification of economic activities in the European Community.
[3] Assignment to a geographical area subject to physical risk (acute and chronic events) due to climate change hinges on the location of the debtor, i.e. the debtor's place of habitual residence or the location of the assets (real estate) in cases involving specialised lending.
[4] In accordance with EBA/ITS/2022/01, the "> 20 years" maturity bucket can also include exposures that have no specific residual maturity for reasons other than the counterparty being able to choose the redemption date.

EU ESG5: Banking book – Indicators of potential climate change physical risk: Exposures subject to physical risk (other countries)

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
		Gross carrying amount [1]													
			thereof exposures sensitive to impact from climate change physical events												
	Variable: Geographical area subject to climate change physical risk - acute and chronic events [2] [3] **Other countries (without Germany)**		Breakdown by maturity bucket					thereof exposures sensitive to impact from chronic climate change events	thereof exposures sensitive to impact from acute climate change events	thereof exposures sensitive to impact both from chronic and acute climate change events	thereof Stage 2 exposures	thereof non-performing exposures	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
All figures in € million, unless otherwise stated			<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years [4]	Average weighted maturity							thereof Stage 2 exposures	thereof non-performing exposures
1	A - Agriculture, forestry and fishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	B - Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	C - Manufacturing	49	-	49	-	-	9	-	-	49	-	-	-	-	-
4	D - Electricity, gas, steam and air conditioning supply	28	8	21	-	-	6	-	28	-	-	-	-	-	-
5	E - Water supply; sewerage, waste management and remediation activities	63	11	-	51	-	10	-	63	-	-	-	-	-	-
6	F - Construction	90	-	-	-	-	-	-	-	-	-	-	-	-	-
7	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	100	100	-	-	-	1	-	100	-	-	-	-	-	-
8	H - Transportation and storage	60	22	31	7	-	6	-	60	-	31	22	2	1	1
9	L - Real estate activities	19,626	8,386	542	164	5	7	-	8,737	360	2,590	629	178	51	112
10	Loans collateralised by residential immovable property	1,574	768	142	-	-	3	-	862	47	393	-	7	7	-
11	Loans collateralised by commercial immovable property	18,015	7,572	394	-	-	3	-	7,654	312	2,187	625	167	45	108
12	Repossessed collaterals	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Other relevant sectors (breakdown below where relevant)	738	-	-	-	-	-	-	-	-	-	-	-	-	-

[1] Gross carrying amount – before impairments on financial assets, after write-downs, before application of credit risk mitigation techniques – of loans and advances, debt securities and equity instruments in the banking book, i.e. excluding financial assets held for trading or held for sale.

[2] Classification according to the counterparty's NACE code is based on the main business activity of the direct counterparty (e.g. the direct borrower, counterparty or securities issuer) or that of the most relevant or significant borrower. The NACE codes are in line with the NACE Regulation: statistical classification of economic activities in the European Community.

[3] Assignment to a geographical area subject to physical risk (acute and chronic events) due to climate change hinges on the location of the debtor, i.e. the debtor's place of habitual residence or the location of the assets (real estate) in cases involving specialised lending.

[4] In accordance with EBA/ITS/2022/01, the "> 20 years" maturity bucket can also include exposures that have no specific residual maturity for reasons other than the counterparty being able to choose the redemption date.

EU ESG10: Other climate change mitigating actions that are not covered in Regulation (EU) 2020/852 (EU Taxonomy)

All figures in € million, unless otherwise stated

	a	b	c	d	e	f
	Type of financial instrument	**Type of counterparty**	**Gross carrying amount**	**Type of risk mitigated (Climate change transition risk)**	**Type of risk mitigated (Climate change physical risk)**	**Qualitative information on the nature of the mitigating actions [1]**
1	**Bonds** (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Financial corporations	60	Climate change transition risk	-	Green bonds issued by the European Investment Bank ("EIB") or Germany's Kreditanstalt für Wiederaufbau ("KfW")
2		Non-financial corporations	-	-	-	
3		thereof Loans collateralised by commercial immovable property	-	-	-	
4		Other counterparties	76	Climate change transition risk	-	Funding of local authorities to support their sustainable investments
5	**Loans [2]** (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Financial corporations	-	-	-	
6		Non-financial corporations	1,102	Climate change transition risk	-	Loans classified as sustainable in line with pbb's ESG scoring
7		thereof Loans collateralised by commercial immovable property	1,102	Climate change transition risk	-	Loans classified as sustainable in line with pbb's ESG scoring
8		Households	-	-	-	
9		thereof Loans collateralised by residential immovable property	-	-	-	
10		thereof building renovation loans	-	-	-	
11		Other counterparties	-	-	-	

[1] Column f provides information on the type of "other" mitigating measures that are not fully aligned with the EU Taxonomy.
[2] The volume of green loans which the Bank has issued since the fourth quarter of 2021 rose to around € 1.6 billion by the end of June 2023 (including irrevocable loan commitments). The gross carrying amount of the loans that have already been paid out amounts to € 1,102 million.

Explanatory notes to the information disclosed

EU ESG1: Banking book – Indicators of potential climate change transition risk: Credit quality of exposures by sector, emissions and residual maturity

Table EU ESG1 presents a breakdown of exposures – loans and advances, debt securities and equity instruments – to non-financial corporations operating in sectors (using NACE codes) that contribute strongly to climate change and are thus more exposed to the risks potentially arising from the transition to a low-carbon and climate-resilient economy.

Given the nature of pbb Group's business model, which focuses on Real Estate Finance ("REF"), 96% of these exposures to non-financial corporations relate to the L sector ("Real estate activities"; € 28.7 billion; line 52) and the F sector ("Construction"; € 336 million; line 40). The remaining sectors combined account for around 4%; on an individual basis, none of them accounts for more than 1% of the exposures. pbb Group is not exposed to companies that are excluded from the Paris-aligned EU benchmarks (e.g. weapons, tobacco, coal, oil, gaseous fuels, etc.) (EU ESG1, column b).

Table EU ESG1 is based on FINREP data (reporting of financial information according to IFRS). Counterparties' scope 1, scope 2 and scope 3 emissions (columns i, j and k) must be disclosed starting 30 June 2024. pbb Group intends to draw on the standard established by the Partnership for Carbon Accounting Financials ("PCAF") for this purpose, which was created to ensure that banks and other financial institutions be consistent in the way they disclose the GHG emissions they finance. Transparency in disclosing GHG emissions and reliable comparisons with other institutions serve to support the implementation of pbb Group's sustainability strategy.

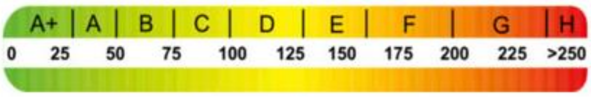
EU ESG2: Banking book – Indicators of potential climate change transition risk: Loans collateralised by immovable property – Energy efficiency of the collateral

Table EU ESG2 presents the transition risk arising from the adaptation to a lower-carbon economy for loans and advances collateralised with commercial and residential immovable property and of repossessed real estate collateral, including information on the collateral's level of energy efficiency measures in terms of kWh/m^2 or in terms of the Energy Performance Certificate ("EPC") label. These exposures are broken down by location of the real estate collateral (EU/non-EU).

pbb Group's Commercial Real Estate Finance portfolio continues to be dominated by investment financing, i.e. financing of properties whose debt servicing capacity essentially rests on their operating cash flow. Financed objects mainly involve office buildings, properties for residential use, retail and logistics properties. 83% of the exposures (loans and advances collateralised with immovable property) shown in Table EU ESG2 are commercial properties, while 17% are residential properties. The geographic focus of pbb Group's business operations remains on Europe and the US. pbb's significant European core markets are Germany, France, the United Kingdom, the Nordic countries, selected Central and Eastern European countries, Spain and the Benelux countries. 77% of exposures are towards EU countries, and 23% to non-EU countries.

FINREP information (i.e. the reporting of financial information according to IFRS) was the main source of information for Table EU ESG2. In addition to the information on the properties' energy efficiency, each property ID was assigned a final energy consumption value, measured in kWh/m^2. Table EU ESG2 (columns h to n) presents the exposures for which an EPC label is available. The A and A+ categories were combined to A; likewise, the G and H categories were combined to G. The information on the properties' final energy consumption value (measured in kWh/m^2) from the EPC label was used to classify the risk exposures by their Energy Performance Score (EPS; columns b to g). Where there had been no information on final energy consumption, it was estimated based on the year of construction and property type. Lines 5 to 10 indicate where energy efficiency was estimated against the final energy consumption due to a lack of EPC labels. The methodology used to estimate final energy consumption (measured in kWh/m^2) is described below, together with the statistical data sources used.

Every residential property for which an EPC label was available was mapped to a category of the German EPC label for residential buildings. For every residential property with an EPC label, information is also available on its final energy consumption per year in kWh/m². While there is no rating with uniform energy efficiency standards for commercial properties in Germany, their final energy consumption in kWh/m² is known if their EPC is known (i.e. energy efficiency in kWh/m²). How Energy Performance Score and EPC label relate is shown in the classification scale for German residential property below.



German EPC categories for residential buildings, in kWh/m²
(energy efficiency for residential buildings – fuel consumption given in kilowatt hours per square metre on an annual basis (shortened to: kWh/m² a).

The average final energy consumption of residential properties continuously decreases by year of construction, as indicated in the table below. The final energy consumption estimates by year of construction are based on statistical averages.

Construction year	Primary energy demand in kWh/m²	Final energy demand in kWh/m²	Final energy consumption in kWh/m²
1918 - 1934	260	225	150
1935 - 1947	265	230	150
1948 - 1949	255	205	150
1950 - 1959	255	205	145
1960 - 1977	240	180	145
1978 - 1989	220	165	140
1990 - 1999	165	125	125
2000	125	100	125
2001	125	100	100
2002 - 2003	100	95	80
2004	95	80	80
2005	90	80	80
2006 - 2007	80	70	75
2008	75	70	75
2009 - 2027	55	50	75

Average final energy consumption per year of construction. Source: https://www.dena.de/fileadmin/user_upload/8162_dena-Gebaeudereport.pdf
The source is only applicable to residential buildings. The other types of property were assigned proxies following a scaling for each property type.

Furthermore, final energy consumption also varies by property type. The following table shows the statistical categories and the scaling factor as a multiple of the residential property category. The estimated final energy consumption for properties without Energy Performance Score therefore corresponds to the average consumption (by year of construction), multiplied with the property type-related scaling factor.

Building category	Energy consumption p.a. (electricity) in kWh/m²	Energy consumption p.a. (heating) in kWh/m²	Total energy consumption in kWh/m²	Scaling factor total
Hotel	60	95	155	1.14
Retail	85	70	155	1.14
Office	85	110	195	1.43
Logistics	35	30	65	0.48
Residential	34	102	136	1.00

Average final energy consumption per property type.
Sources: Non-residential buildings (https://geg-info.de/geg/210503_bmwi_bmi_regeln_energieverbrauchskennwerte_nichtwohnbestand.pdf) und
Residential buildings (https://www.bmwk.de/Redaktion/DE/Downloads/Studien/vorbereitende-untersuchungen-zur-langfristigen-renovierungsstrategie-ergaenzung.pdf?__blob=publicationFile&v=6)

Reporting on the energy efficiency of financed properties is an integral part of pbb's regular internal reporting to management.

EU ESG4: Banking book – Indicators of potential climate change transition risk: Exposures to top 20 carbon-intensive firms

Table EU ESG4 is not relevant for pbb Group as pbb Group had no exposure to the top 20 most carbon-intensive corporations worldwide as at the reporting date.

(Source: Carbon Majors Report 2017, https://cdn.cdp.net/cdp-production/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1501833772)

EU ESG5: Banking book – Indicators of potential climate change physical risk: Exposures subject to physical risk

Table EU ESG5 includes information on exposures (loans, debt securities and equity instruments) to non-financial corporates, on loans collateralised with immovable property and on repossessed real estate collateral, potentially exposed to physical risk from chronic and acute climate-related hazards. The table also contains information on the credit quality of these exposures and their maturity buckets/residual terms. In line with the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"), counterparties are broken down by sector of economic activity (using NACE codes) and geography.

Regarding geography (i.e. areas prone to climate-related hazards), pbb Group's information in Table EU ESG5 refers to Germany and all other countries combined. Germany alone accounts for around 32% of all exposures to non-financial corporates, 98% of which relate to the L ("Real estate activities") and F ("Construction") sectors. Other countries (excluding Germany) account for 68% of the exposures, 95% of which relate to the L ("Real estate activities") and F ("Construction") sectors.

Risk exposures that are only subject to chronic climate change-related events did not exist in Germany or in the other countries as at the disclosure date. A physical risk is considered to be acute if it materialises due to extreme events, such as drought, flooding or storms. Risk exposures that are only subject to acute climate change-related events amount to € 1,259 million in Germany (13% of the total risk exposures relating to Germany) and to € 8,988 million in all other countries combined (43% of the total risk exposures relating to these countries). A physical risk is considered to be chronic if it results from gradual changes (such as rising sea levels). Risk exposures prone to both chronic and acute events as a result of climate change amount to € 192 million in Germany (2% of the total risk exposures relating to Germany) and to € 409 million in all other countries combined (2% of the total risk exposures relating to these countries).

FINREP information (i.e. the reporting of financial information according to IFRS) was the main source of information for Table EU ESG5. A description of the methodology applied to assess the sensitivity to climate change-related physical events is given below, together with the data sources used. The sensitivity analysis for collateralised financings includes the risk assessment for the collateral provided (commercial and residential properties). For uncollateralised financings, the assessment was based on the counterparty or the counterparty's area of economy activity.

The physical risk assessments for collateralised financings are available at an individual property level. Looking at the individual exposures, the risk assessment of a (chronic and/or acute) physical risk directly results from the property that carries the highest risk. The physical risk assessments for uncollateralised financings focus on the counterparty, and were derived using the postal code of the counterparty's head office, using the European Union's Nomenclature of Territorial Units for Statistics (NUTS).

Sensitivity of the financings towards climate hazards was assessed based on the results of the physical risk assessment for pbb Group's risk inventory. For the purposes of systematically identifying and analysing potential risks arising from the business model or pbb Group's external environment, pbb carries out a comprehensive risk inventory at least once a year. The objective of this risk inventory is to establish a full risk profile which identifies any and all risks, provides an assessment as to whether these risks are material for pbb Group's capital and liquidity resources, and scans them as to potential risk concentrations. In order to ensure that ESG risks are given adequate consideration in the Bank's risk management processes, an identification and assessment process for ESG risk drivers has been established as a firm component of the annual risk inventory.

As part of the risk assessment for the risk inventory, each property was attributed a qualitative risk level on a risk scale (traffic light system) for ten acute (flooding, heavy rain, storm surge, storm, tornado, hail, drought, forest fire, heat, and landslide) and two chronic climate risks (coastal erosion, rising sea levels). The risk scales for most of these risks are taken from external sources (K.A.R.L., ThinkHazard, WRI Aqueduct); only climate risks arising from wildfires and landslides were specifically assessed by pbb's experts, and concerned properties added based on an analysis of the vegetation and altitude profiles. pbb therefore fully considers all physical climate risks mentioned as examples in the Implementing Regulation (EU) 2022/2453 for its assessments.

The difference between acute and chronic risks is based on the EBA Report on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms (EBA/REP/2021/18), amongst others. If, for one or more acute risk(s), the assessment of a property or counterparty indicated the second-highest risk level, this property was classified as being sensitive to acute physical risks. The same approach was used for chronic physical risks. Since we applied a very conservative approach, the disclosure in Table EU ESG5 can be regarded as an upper risk barrier for pbb Group. In addition, the result of the assessment should be considered as gross risk, meaning before any risk mitigation measures or individual climate assessments (e.g. insurance policies and/or construction measures by the borrower or changes in contract terms or special due diligence approaches adopted by the Bank).

Risk assessments for flooding, heavy rain, storm surge, storm, tornado and hail were based on data provided by Köln.Assekuranz Risiko Lösungen (K.A.R.L.). K.A.R.L. offers an analysis tool to identify and quantify location- and property-related risks from natural hazards. To assess the risk situation, K.A.R.L. combines the location-specific hazard situation and the resilience (or vulnerability) of the respective property or industry location using a loss projection function specific to the property type. Table EU ESG5 was therefore populated using expected annual loss amounts; these were translated into a five-level qualitative risk assessment for the specific location, in line with the traffic light system of the K.A.R.L. risk scale.

Risk	Lower barrier in %	Upper barrier in %
No risk	-	0.00
Very low risk	0.00	0.05
Low risk	0.05	0.10
Medium risk	0.10	0.70
High risk	0.70	-

Risk assessment per property, based on the expected loss in % for all physical risks covered by K.A.R.L

The drought, forest fire, heat, landslide, rising sea level and coastal erosion risk categories were assessed based on publicly available hazard maps from the World Bank's ThinkHazard tool and WRI Aqueduct (which sets standards for the Greenhouse Gas Protocol). Our assessment follows ThinkHazard's method with its thresholds for the risk scale. For all risks not covered by ThinkHazard (coastal erosion, rising sea levels), the ThinkHazard thresholds were extrapolated based on expert estimates.

The risk assessment by geography was based on the European Union's Nomenclature of Territorial Units for Statistics (NUTS) and the breakdown of the EU into regions. For non-European geographies, the respective areas were approximated using a geographical coordinate and its realistic impact radius in each case.

EU ESG10: Other climate change mitigating actions that are not covered in Regulation (EU) 2020/852 (EU Taxonomy)

Table EU ESG10 presents an overview of loans and bonds that support the transition to sustainable growth and a climate-neutral economy. It covers all exposures that are aimed at mitigating climate-related risks, including those that might not be aligned with the EU Taxonomy criteria. pbb Group carries both green loans (based on the requirements of pbb's Green Loan Framework) and green bonds on its balance sheet. For green bonds, the gross carrying amount amounted to € 136 million as at 30 June 2023 (31 December 2022: € 136 million), for green loans to € 1.102 million (31 December 2022: € 571 million).

pbb Group aims to consider sustainability aspects within all its business activities, exploit ESG opportunities, and minimise the risk of negative consequences due to ESG risks. It has defined sustainable finance as being a central pillar of its ESG strategy which promotes sustainability in the Bank's core lending and funding business. and has not only developed the Green Loan and Green Bond Frameworks, including respective products, but also successfully placed them on the market.

- pbb Group has established a Green Bond Framework aimed at raising funds through the issuance of green bonds. By issuing green bonds, pbb Group enables investors to make targeted investments in sustainable capital market products.
- In addition, pbb Group has developed a Green Loan Framework in accordance with the LMA Green Loan Principles and taking the EU Taxonomy into account. The requirements of this Green Loan Framework even exceed those of the Green Bond Framework.

pbb has been offering green loans as a new credit product since the fourth quarter of 2021. This includes loans to finance existing green buildings, development financing for green buildings as well as transformation financing for existing properties to convert them into green buildings. There is as yet no established standard for green loans on the market. Therefore, pbb has developed a Green Loan Framework based on two elements: a standalone sustainability scoring model, and the EU Taxonomy. The pbb scoring model allows for the assessment of real estate using specific criteria; from a defined minimum score, real estate qualifies for green lending. As an alternative, pbb grants green loans to buildings compliant with the EU Taxonomy. pbb's scoring model takes three dimensions into account: the energy efficiency of a building, building certifications, and further sustainability factors. The latter include factors such as soil surface sealing or the availability of, and distance to, the public transportation network, as well as the use of recycled materials for construction or the type of heating and use of green electricity.

Outlook

Pillar 3 data hub

In accordance with its Annual Report 2021 published on 15 June 2022, EBA seeks to further enhance market discipline and promote the use of Pillar 3 information by facilitating centralised access to such information (the Pillar 3 data hub) for credit institutions in the European Economic Area (EEA). The Pillar 3 information published in the Pillar 3 data hub is intended to be integrated with the European Single Access Point (ESAP), which is a central access point for all publicly available information in the EU. The Pillar 3 data hub aims to offer easy electronic access to qualitative and quantitative Pillar 3 information for all EEA institutions (via the EBA website), thus facilitating comparability of information.

The Pillar 3 data hub is intended to become operational by the fourth quarter of 2024, with institutions starting to report the data in January 2025.

List of Tables

Attestation of the Management Board

In accordance with Article 431 (3) sent. 1 to 3 of the CRR

pbb's Management Board confirms that, to the best of its knowledge, this Disclosure Report has been prepared in accordance and compliance with the formal procedures and regulations adopted and implemented at pbb Group to adhere to the disclosure requirements pursuant to Part 8 of the CRR.

Munich, 5 September 2023

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