Disclosure Report

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

as at 30 June 2022

Deutsche Pfandbriefbank Group

Overview

Deutsche Pfandbriefbank Group („pbb Group“)

EU KM1: Key metrics

All figures in € million, unless otherwise stated		a 30.06.2022	b 31.03.2022	c 31.12.2021	d 30.09.2021	e 30.06.2021
	Available own funds (amounts)					
1	Common Equity Tier 1 (CET1) capital	2,841	2,824	2,875	2,703	2,777
2	Tier 1 capital	3,139	3,122	3,173	3,001	3,074
3	Total capital	3,703	3,700	3,766	3,594	3,693
	Risk-weighted exposure amounts					
4	Total risk-weighted exposure amount	16,481	16,726	16,792	18,116	17,992
	Capital ratios (as a percentage of risk-weighted exposure amount)					
5	Common Equity Tier 1 ratio (%)	17.2	16.9	17.1	14.9	15.4
6	Tier 1 ratio (%)	19.0	18.7	18.9	16.6	17.1
7	Total capital ratio (%)	22.5	22.1	22.4	19.8	20.5
	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 excessive 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 (%)	0.02	0.02	0.02	0.02	0.02
EU 9a	Systemic risk buffer (%)	-	-	-	-	-
10	Global Systemically Important Institution buffer (%)	-	-	-	-	-
EU 10a	Other Systemically Important Institution buffer (%)	-	-	-	-	-
11	Combined buffer requirement (%)	2.52	2.52	2.52	2.52	2.52
EU 11a	Overall capital requirements (%)	13.02	13.02	13.02	13.02	13.02
12	CET1 available after meeting the total SREP own funds requirements (%)	11.2	10.8	10.4	8.7	9.2
	Leverage ratio					
13	Total exposure measure	55,210	51,542	52,549	52,758	52,386
14	Leverage ratio (%)	5.7	6.0	6.0	5.7	5.9
	Additional own funds requirements to address the risk of excessive leverage (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	3.1	3.1	3.1	3.1
	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	3.1	3.1	3.1	3.1
	Liquidity Coverage Ratio					
15	Total high-quality liquid assets (HQLA) (Weighted value - average)	5,837	5,961	5,808	5,778	5,728
EU 16a	Cash outflows - Total weighted value	2,703	2,693	2,346	2,269	2,211
EU 16b	Cash inflows - Total weighted value	292	323	370	414	512
16	Total net cash outflows (adjusted value)	2,411	2,368	1,978	1,855	1,699
17	Liquidity coverage ratio (%)	254	270	308	321	347
	Net Stable Funding Ratio					
18	Total available stable funding	44,293	48,602	49,781	49,121	49,963
19	Total required stable funding	38,887	40,986	42,030	42,284	42,078
20	NSFR ratio (%)	114	119	118	116	119

[1)] The regulatory own funds as of 30 June 2022, which were understated by € 17 million, and the capital ratios were corrected on 20 October 2022. The original publication of the Disclosure Report as of 30 June 2022 was accordingly replaced.

Note:

The monetary values shown in this Disclosure Report are stated in millions of euros in accordance with Article 19 no. 4 of Implementing Regulation (EU) 2021/637. 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 not shown due to commercial rounding; these are 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 CRR II/CRD IV and CRD V regulations (hereinafter referred to uniformly as “CRR” and “CRD” respectively if and to the extent that no statements are made on the CRR II and CRD V provisions that have been applicable for the first time since 28 June 2021; such statements shall then make explicit reference to “CRR II” and “CRD V”), uncertainty remains as to how some of the regulations are to be interpreted, and the final versions of some of the related mandatory regulatory technical standards are still unavailable. As a result, we will adjust our assumptions and models on an ongoing basis as our understanding and interpretation of the rules, and those of the sector as a whole, evolve. With this in mind, our current CRR/CRD metrics cannot be comparable to our previous expectations. Our CRR/CRD metrics may also not be comparable to metrics reported by our competitors with similar designations, as their assumptions and estimates may differ from our own.

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 specialist lender for commercial real estate finance and public investment finance in Europe and the United States of America, focusing on business eligible for inclusion in Pfandbrief cover. It issues Mortgage Pfandbriefe, collateralised by real property liens, as well as Public Sector Pfandbriefe, collateralised by claims against the public sector and, measured by outstanding volume, is one of the largest issuers of Pfandbriefe, which also makes it an important player in the European covered bond markets. In its core markets, pbb maintains a strong local presence for its clients, covering all functions of the financing process. Thanks to its loan structuring expertise, its cross-border business approach, and cooperation with other financing partners, pbb is in a position to provide complex financings as well as cross-border transactions.

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).

Objective of the Disclosure Report

As the parent company of the regulatory group of institutions, pbb (LEI code: DZZ47B9A52ZJ6LT6VV95) uses this Disclosure Report to implement the disclosure requirements pursuant to Part 8 of the Capital Requirements Regulation, Regulation (EU) 2019/876 (CRR II) amending Regulation (EU) No 575/2013 (CRR I), for pbb and its subordinated affiliated companies (pbb Group) as at 30 June 2022.

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). The reporting currency is the euro. The relevant disclosure period is from 1 April 2022 to 30 June 2022, although the reference period for certain tables and information may differ depending on the relevant disclosure cycle pursuant to Article 433a of the CRR. 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.

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

- regulatory capital (own funds) and capital ratios
- regulatory capital (own funds) requirements and risk-weighted exposure amounts (RWA)
- 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.

The Disclosure Report of pbb Group also contains additional information on:

- the approach to sustainability risks
- measures taken in response to the COVID-19 crisis.

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 adopted formal procedures and regulations designed to assure (adequate) compliance with the disclosure requirements in accordance with the CRR, and has implemented and 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 annual financial statements. The Disclosure Report itself is not audited by the auditor of the pbb Group's financial statements, which explains why the Pillar 3 disclosures in this report are not certified.

The Disclosure Report is approved by the entire Management Board of pbb. 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 European Central Bank (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 the 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. There are no differences between the scope of prudential consolidation and the accounting scope of consolidation for pbb's consolidated financial statements (IFRS) 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 ratios are calculated on the basis of the International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS).

Waiver pursuant to the CRR

In the first half of 2022, 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 2021 (chapter “Introduction”, page 7).

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, as a result, for the capital backing of the various risk types, default risk (credit risk, counterparty credit risk), market risk, operational risk, settlement risk and CVA 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. The consolidated profit for the period from 1 January to 30 June 2022 (net income after taxes) has not been taken into account in the determination of regulatory own funds in line with the regulatory provisions of the CRR.

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 2022.

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 30.06.2022	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)]	1,044	Reference EU CC2, line 34
3	Accumulated other comprehensive income (and other reserves)	-86	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 34
6	**Common Equity Tier 1 (CET1) capital before regulatory adjust-ments**	**2,974**	Reference EU CC2, line 37
Common Equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative amount)	-4	Reference EU CC2, line 38
8	Intangible assets (net of related tax liability) (negative amount)	-27	Reference EU CC2, line 39
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)	-20	Reference EU CC2, line 40
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	29	Reference EU CC2, line 41
12	Negative amounts resulting from the calculation of expected loss amounts	-13	Reference EU CC2, line 42
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 43
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) 30.06.2022	(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)	-99	Reference EU CC2, line 44
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**-134**	Reference EU CC2, line 45
29	**Common Equity Tier 1 (CET1) capital**	**2,841**	Reference EU CC2, line 46
Additional Tier 1 (AT1) capital: instruments			
30	Capital instruments and the related share premium accounts	298	Reference EU CC2, line 47
31	thereof: classified as equity under applicable accounting standards	298	Reference EU CC2, line 48
32	thereof: classified as liabilities under applicable accounting standards	-	Reference EU CC2, line 49
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 50
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) 30.06.2022	(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 52
44	**Additional Tier 1 (AT1) capital**	**298**	Reference EU CC2, line 53
45	**Tier 1 capital (T1 = CET1 + AT1)**	**3,139**	Reference EU CC2, line 54
Tier 2 (T2) capital: instruments			
46	Capital instruments and the related share premium accounts	565	Reference EU CC2, line 55
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 56
51	**Tier 2 (T2) capital before regulatory adjustments**	**565**	Reference EU CC2, line 57
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 59
58	**Tier 2 (T2) capital**	**565**	Reference EU CC2, line 60
59	**Total capital (TC = T1 + T2)**	**3,703**	Reference EU CC2, line 61
60	**Total Risk exposure amount**	**16,481**	

All figures in € million, unless otherwise stated		(a) 30.06.2022	(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)**	**17.24%**	
62	**Tier 1 (as a percentage of total risk exposure amount)**	**19.04%**	
63	**Total capital (as a percentage of total risk exposure amount)**	**22.47%**	
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)	8.43%	
65	thereof: capital conservation buffer requirement	2.50%	
66	thereof: countercyclical buffer requirement	0.02%	
67	thereof: systemic risk buffer requirement	-	
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)**	**11.17%**	
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)	108	
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	26	
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	80	
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] For regulatory purposes, excluding consolidated profit (net income after taxes) generated during the period from 1 January to 30 June 2022.
[2] The regulatory own funds as of 30 June 2022, which were understated by € 17 million, and the capital ratios were corrected on 20 October 2022. The original publication of the Disclosure Report as of 30 June 2022 was accordingly replaced.

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 the reported equity according to IFRS in the amount of € 3,349 million, with 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.

As in the previous year, pbb's subscribed capital (share capital) amounted to around € 380 million (EU CC1, line 1a) as at 30 June 2022, 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 share. As in the previous year, pbb did not hold any treasury shares in the first half of 2022.

In addition to the subscribed capital (share capital), the Common Equity Tier 1 capital consists of the capital reserve of € 1,637 million (line 1b), the retained earnings of € 1,044 million (lines 2 and EU-5a), without accounting for consolidated profit of € 91 million generated between 1 January and 30 June 2022, and the accumulated other comprehensive income of € -86 million (line 3). The Common Equity Tier 1 capital before regulatory adjustments amounts to € 2,974 million (line 6).

The Common Equity Tier 1 capital before regulatory adjustments of € 2,974 million is subject to various regulatory adjustments defined in the CRR, with a total of € 134 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 € 4 million are deducted from CET1 in full (line 7).

  When calculating its own funds, pbb Group takes into account the requirements for the prudent valuation of assets recognised at fair value in accordance with Article 34 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 amounts to € 4.3 billion as at the disclosure date in accordance with pbb's consolidated financial statements (IFRS).

> Intangible assets (mainly purchased and internally developed software) totalling € 41 million are deducted from CET1 in accordance with Article 37 of the CRR in conjunction with Article 36 (1) (b) of the CRR in the amount of € 27 million (line 8).

  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 (but no longer than the amortisation period for accounting purposes). pbb Group applies this provision to prudently valued software assets in the amount of € 14 million.

  The European Banking Authority (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 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.

  In addition to the amortisation period for accounting purposes, which is not changed, a shorter regulatory amortisation period of a maximum of three years applies. This must not exceed the amortisation period for accounting purposes. The start of the amortisation period is the time at which the institution starts using the software, as in the statement of financial position. 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 starts using the software, only the difference between the amortisation recognised in the financial statements and the higher regulatory amortisation is to be deducted from CET1. 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 %. pbb Group reports these software assets in the IRB approach in the exposure class "Other non-credit obligation assets".

> Deferred tax assets in the amount of € 20 million that do not result from temporary differences (after offsetting against deferred tax liabilities in the statement of financial position) are deducted from CET1 in accordance with Article 38 (3) of the CRR (line 10).

  The deferred tax assets of € 107 million resulting from temporary differences are risk-weighted in the credit risk standardised approach in the "Other items" exposure class.

> The hedging reserve for cash flow hedges of € -29 million still included in the accumulated other comprehensive income is fully eliminated again in accordance with Article 33 of the CRR (line 11, € +29 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 recognised (stage 1 to stage 3) and provisions 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 2022 amounted to € 13 million (line 12).

> The item "Other regulatory adjustments" in a total amount of € -99 million (EU CC1, line 27a) primarily includes the following deduction items from CET1:

- Expenses for collateral payments in the amount of € 41 million. This includes, in particular, 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 private banks in the Federal Association of German Banks (BdB). The deduction obligation is derived from the ECB's SREP notice.

- An amount of € 27 million for the minimum loss coverage for non-performing exposures (NPL backstop).

  In this context, pbb Group has credit losses of around € 23 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 extended or increased after 26 April 2019.

  There is only a small volume (< € 0.1 million) of credit losses that lead to an NPL backstop according to the addendum of the European Central Bank (ECB). 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 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 (Supervisory Review and Evaluation Process) 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 around € 4 million for pbb Group

- Gains and losses from derivative liabilities recognised at fair value resulting from the institution's own credit risk (debt value adjustment, DVA) amounting to € 8 million. The deduction obligation for the DVA is based on Article 33 (1) (c) of the CRR.

All in all, pbb Group's Common Equity Tier 1 capital (CET1) amounted to € 2,841 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 capital comprises subordinated bearer bonds with a total nominal amount of € 300 million and an initial interest rate of 5.750 % p.a., which were issued by pbb in April 2018 and are available for an indefinite period without any incentive to redeem. From an accounting perspective, the AT1 capital is also classed as own funds in accordance with IFRS, as, subject to certain conditions, there is neither an obligation to repay the bond nor 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 2022, a coupon payment of € 17 million was made in relation to the AT1 capital.

While the bonds have a perpetual maturity, pbb has an ordinary right to call them for the first time as at 28 April 2023 and every five years thereafter, and also 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 a 7.0 % threshold. 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 exempted 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 shares of pbb, 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 the issuer that rank pari passu with each other, but enjoy priority over liabilities of the issuer resulting from Common Equity Tier 1 capital instruments. In the event of resolution measures in relation to the issuer, and in the event of the dissolution, liquidation or insolvency of the issuer, 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. They are subordinated to the claims of all other creditors which are not themselves subordinated (in the event of liquidation, insolvency 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, term or period of notice Debtor termination rights are possible subject to certain contractual requirements. The original terms are at least 5 years and are usually between 10 and 20 years. The responsible resolution authority has the (statutory) option of converting the Tier 2 capital into shares of pbb, 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 amounts to € 565 million as at the disclosure date.

Own funds

pbb Group's regulatory own funds decisive for meeting the own funds requirements and, as a result, for capital backing, amounted to a total of € 3,703 million (€ -63 million compared to 31 December 2021). This sum is comprised of € 2,841 million Common Equity Tier 1 capital (CET1, € -34 million), € 298 million Additional Tier 1 (AT1) capital and € 565 million Tier 2 capital (T2, € -28 million).

Regulatory own funds are calculated in line with the regulatory provisions of the CRR, excluding consolidated profit generated during the period from 1 January and 30 June 2022 (net income after taxes: € 91 million). Further information on the composition of reported equity (IFRS) and its development is set out in pbb Group's 2022 Interim Report, in the notes "Statement of changes in equity" (page 38) and 27 "Equity" (page 50).

The decline in Common Equity Tier 1 capital (CET1) by € 34 million is primarily attributable to an overall increase of capital deductions (regulatory adjustments), amongst other things for expenses for collateral payments (bank levies), the deduction obligation for the DVA and the value adjustment deficit under the IRB approach. This was offset by, amongst other things, the decrease of the deduction for the minimum loss coverage for non-performing exposures (NPL backstop). The reduction of the Tier 2 (T2) capital by € 28 million results from the repayment 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 to pbb's consolidated statement of financial position as at 30 June 2022, in particular to the 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) amounts to € 3,349 million as at the end of the first half of 2022 (EU CC2, line 29). Pursuant to a resolution by the Annual General Meeting on 19 May 2022, pbb paid to its shareholders a dividend of € 1.18 per share entitled to dividends (a total of € 159 million, see EU CC2, line 36).

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)] 30.06.2022	c Reference
Assets - Breakdown by asset clases according to the balance sheet in the published financial statements			
1	Cash reserve	5,502	
2	Financial assets at fair value through profit or loss	997	
3	Financial assets at fair value through other comprehensive income	1,243	
4	Financial assets at amortised cost after credit loss allowances	46,756	
5	Positive fair values of hedge accounting derivatives	399	
6	Valuation adjustment from portfolio hedge accounting (assets)	-68	
7	Tangible assets	30	
8	Intangible assets	41	
9	Other assets	56	
10	Current income tax assets	13	
11	Deferred income tax assets	127	
12	**Total assets**	**55,096**	
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	676	
14	Financial liabilities measured at amortised cost	49,732	
15	Subordinated liabilities [2)]	623	
16	Negative fair values of hedge accounting derivatives	1,150	
17	Valuation adjustment from portfolio hedge accounting (liabilities)	-55	
18	Provisions	168	
19	Other liabilities	50	
20	Current income tax liabilities	26	
21	**Liabilities**	**51,747**	
22	Equity attributable to the shareholders of pbb	3,049	
23	Subscribed capital	380	
24	Additional paid-in capital	1,637	
25	Retained earnings	1,118	
26	Accumulated other comprehensive income	-86	
27	Additional equity instruments (AT1) [2)]	298	
28	Non-controlling interests [3)]	2	
29	**Equity**	**3,349**	
30	**Total equity and liabilities**	**55,096**	
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	1,044	Reference EU CC1, lines 2 and EU-5a
35	Accumulated other comprehensive income	-86	Reference EU CC1, line 3
36	Distribution of a dividend (for information purposes) [4)]	-159	
37	**Common Equity Tier 1 (CET1) before regulatory adjustments**	**2,974**	Reference EU CC1, line 6
	Common Equity Tier 1 (CET1): regulatory adjustments		
38	Additional value adjustments (negative amount)	-4	Reference EU CC1, line 7
39	Intangible assets (net of related tax liability) (negative amount)	-27	Reference EU CC1, line 8
40	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)	-20	Reference EU CC1, line 10

All figures in € million		a **Balance sheet as in published financial statements under regulatory scope of consolidation [1]** **30.06.2022**	c **Reference**
41	Fair value reserves related to gains or losses on cash flow hedges	29	Reference EU CC1, line 11
42	Negative amounts resulting from the calculation of expected loss amounts	-13	Reference EU CC1, line 12
43	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-	Reference EU CC1, line 14
44	Other regulatory adjustments to CET1 capital	-99	Reference EU CC1, line 27a
45	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-134**	Reference EU CC1, line 28
46	**Common Equity Tier 1 (CET1) capital**	**2,841**	Reference EU CC1, line 29
	Additional Tier 1 (AT1) capital: Instruments and reserves		
47	Capital instruments and the related share premium accounts	298	Reference EU CC1, line 30
48	thereof: classified as equity under applicable accounting standards	298	Reference EU CC1, line 31
49	thereof: classified as liabilities under applicable accounting standards	-	Reference EU CC1, line 32
50	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**298**	Reference EU CC1, line 36
	Additional Tier 1 (AT1) capital: regulatory adjustments		
51	Not applicable at pbb	-	
52	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**0**	Reference EU CC1, line 43
53	**Additional Tier 1 (AT1) capital**	**298**	Reference EU CC1, line 44
54	**Tier 1 capital (T1 = CET1 + AT1)**	**3,139**	Reference EU CC1, line 45
	Tier 2 (T2) capital: Instruments and reserves		
55	Capital instruments and the related share premium accounts	565	Reference EU CC1, line 46
56	Credit risk adjustments	-	Reference EU CC1, line 50
57	**Tier 2 (T2) capital before regulatory adjustments**	**565**	Reference EU CC1, line 51
	Tier 2 (T2) capital: regulatory adjustments		
58	Not applicable at pbb	**-**	
59	**Total regulatory adjustments to Tier 2 (T2) capital**	**0**	Reference EU CC1, line 57
60	**Tier 2 (T2) capital**	**565**	Reference EU CC1, line 58
61	**Total capital (TC = T1 + T2)**	**3,703**	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 in the IFRS statement of financial position under liabilities.

[3] The non-controlling interests (line 28) result from the participating interest held by Caisse des Dépôts et Consignations (CDC) in CAPVERIANT GmbH. These are not included in regulatory own funds.

[4] Pursuant to a resolution by the Annual General Meeting on 19 May 2022, pbb paid to its shareholders a dividend of € 1.18 per share entitled to dividends (a total of € 159 million).

[5] The regulatory own funds as of 30 June 2022, which were understated by € 17 million, and the capital ratios were corrected on 20 October 2022. The original publication of the Disclosure Report as of 30 June 2022 was accordingly replaced.

Relief in the context of the COVID-19 pandemic

In view of the COVID-19 crisis, the banking regulator provided institutions with various options for relief with regard to the calculation of own funds and own funds requirements in "CRR Quick Fix" regulations. This temporary relief related both to amendments to the CRR and to regulations from the CRR II applicable since 28 June 2021 that were brought forward.

Article 500b of the CRR

Starting at the end of 2020, pbb Group has applied the COVID-19-related relief in accordance with Article 500b of the CRR (Temporary exclusion of certain exposures to central banks from the total exposure measure, period of temporary treatment: 1 January 2020 to 27 June 2021) in conjunction with Amending Regulation (EU) 2020/873 ("CRR Quick Fix") and Guidelines EBA/GL/2020/11. In its decision of 16 September 2020, the ECB stated that there were exceptional circumstances justifying a temporary exclusion of these exposures.

This decision was reaffirmed by the ECB's decision of 18 June 2021 and was extended until 31 March 2022. However, according to the press release dated 10 February 2022, the ECB no longer saw any need to allow banks to continue to exclude these exposures from the leverage ratio beyond March 2022. Accordingly, pbb Group applied the temporary relief under Article 429a (1) (n) of the CRR for the last time as at the disclosure date 31 March 2022.

Since 1 April 2022, exposures vis-à-vis Eurosystem central banks have to be included in the leverage ratio again.

Articles 468 and 473a of the CRR

pbb Group does not apply 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) or 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.

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, as well as the full impact of unrealised gains/losses from financial instruments measured at fair value (equity item "Accumulated other comprehensive income").

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.

Own funds and eligible liabilities (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 implemented into national law amongst others through the German Act on the Recovery and Resolution of Credit Institutions, institutions are required to maintain equity and liabilities that can be converted to equity in accordance with the MREL ratio. However, there are clear limits to the ability to convert liabilities (the 'bail-in capacity'). In particular, there is the principle that no investor may be placed in a less advantageous position than is permitted under regular 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 exact level of the MREL ratio is determined by regulators individually for each institution concerned.

pbb Group 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. This requirement was exceeded by far in the first half of 2022, as in the previous year.

Countercyclical capital buffer

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

Countercyclical capital buffer

The countercyclical capital buffer (CCB) 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, the banks are to create an additional capital buffer (using Common Equity Tier 1 (CET1) capital), increas-ing banks' 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 (CCB) can generally amount to between 0 % and 2.5 % of the total risk exposure amount (risk-weighted assets, RWA) and is subject, for Germany, to quarterly checks by the Federal Financial Supervisory Authority (BaFin) to ensure it is appropriate, with adjustments being made if need be. This involves BaFin assessing the intensity of the cyclical systemic risk and evaluating which value is appropriate for the domestic countercyclical capital buffer.

In its general administrative act of 31 January 2022, BaFin increased the domestic countercyclical capital buffer from 0 % to 0.75 % of risk-weighted assets as at 1 February 2022. This is designed as a preventative measure to strengthen the resilience of the German banking system. The implementation period for institutions is twelve months, and the aforementioned value therefore has to be applied to the calculation of the institution-specific countercyclical capital buffer from 1 February 2023 onwards.

As at the disclosure date of 30 June 2022, the value for Germany remains unchanged at 0 %.

Individual institution-specific countercyclical capital buffer

pbb Group has to determine its own institution-specific CCB (ICCB) itself. The value of the countercyclical capital buffer relevant for Germany has to be taken into account and applied to the sum of the relevant 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) also 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 to the private sector (EU CCyB1: as the sum of the weighted own funds requirement per country in accordance with column l multiplied by the country-specific CCB in % according to column m).

Capital buffer for systemic risks

In addition to the increase in the domestic countercyclical capital buffer described above (to 0.75 % effective 1 February 2023), BaFin also introduced a sector-specific systemic risk buffer of 2.00 % with its "General Administrative Act ordering a capital buffer for systemic risks under section 10e of the KWG" dated 30 March 2022. This systemic risk buffer applies to exposures concerning loans secured by residential real estate and is also intended to counteract the specific risks in the residential real estate market that cannot be fully covered by the CCB. The own funds requirement for the systemic risk buffer, like the CCB, must be maintained in Common Equity Tier 1 (CET1) capital. Banks have until 1 February 2023 to comply with the requirement.

Quantitative information on the countercyclical capital buffer

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

The institution-specific countercyclical capital buffer for pbb Group as at 30 June 2022 is unchanged as against the end of the first half of 2021 at 0.02 %, meaning that it remains well below the applicable maximum ratio of 2.5 %.

The calculation of the ICCB took into account the country-specific countercyclical capital buffers of the Czech Republic (0.5 %), Slovakia (1.0 %) and Luxembourg (0.5 %). 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 € 3 million (0.02 % of the risk-weighted exposure amounts) is to be held 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 € 2,099 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)]	16,481
2	Institution specific countercyclical capital buffer rate (%)	0.02
3	Institution specific countercyclical capital buffer requirement [2)]	3

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

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	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	Exposure value for non-trading book		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	478	267	-	-	-	745	9	-	-	9	108	1.00	0.00
2	(AW)	Aruba	46	-	-	-	-	46	-	-	-	-	-	-	-
3	(BD)	Bangladesh	24	-	-	-	-	24	-	-	-	-	-	-	-
4	(BE)	Belgium	119	150	-	-	-	269	3	-	-	3	43	0.00	0.00
5	(BM)	Bermuda	27	-	-	-	-	27	-	-	-	-	-	-	-
6	(CH)	Switzerland	27	128	-	-	-	155	8	-	-	8	96	1.00	0.00
7	(CZ)	Czech Republic	-	355	-	-	-	355	21	-	-	21	263	2.00	0.50
8	(DE)	Germany	566	12,943	-	-	-	13,509	183	-	-	183	2,292	16.00	0.00
9	(ES)	Spain	413	295	-	-	-	708	28	-	-	28	347	2.00	0.00
10	(FI)	Finland	-	285	-	-	-	285	14	-	-	14	174	1.00	0.00
11	(FR)	France	475	3,625	-	-	-	4,100	223	-	-	223	2,790	20.00	0.00
12	(GB)	United Kingdom	-	2,395	-	-	-	2,395	151	-	-	151	1,885	13.00	0.00
13	(GG)	Guernsey	-	-	-	-	-	-	-	-	-	-	-	-	-
14	(GH)	Ghana	39	-	-	-	-	39	-	-	-	-	-	-	-
15	(HU)	Hungary	-	149	-	-	-	149	7	-	-	7	87	1.00	0.00
16	(IE)	Ireland	106	-	-	-	-	106	-	-	-	-	-	-	0.00
17	(IT)	Italy	-	110	-	-	-	110	5	-	-	5	57	0.00	0.00
18	(JE)	Jersey	26	-	-	-	-	26	2	-	-	2	27	0.00	-
19	(KY)	Cayman Islands	64	-	-	-	-	64	-	-	-	-	-	-	-
20	(LI)	Liechtenstein	-	5	-	-	-	5	-	-	-	-	-	-	0.00

			a	b	c	d	e	f	g	h	i	j	k	l	m
			General credit exposures		Relevant credit exposures – Market risk		Securitisation exposures	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	Exposure value for non-trading book		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	(LU)	Luxemburg	128	113	-	-	-	241	16	-	-	16	200	1.00	0.50
22	(MU)	Mauritius	-	-	-	-	-	-	-	-	-	-	-	-	-
23	(NL)	Netherlands	-	1,053	-	-	-	1,053	47	-	-	47	585	4.00	0.00
24	(OM)	Oman	55	-	-	-	-	55	-	-	-	-	-	-	-
25	(PL)	Poland	-	1,545	-	-	-	1,545	85	-	-	85	1,061	8.00	0.00
26	(PT)	Portugal	98	-	-	-	-	98	2	-	-	2	20	0.00	0.00
27	(RO)	Romania	-	182	-	-	-	182	10	-	-	10	119	1.00	0.00
28	(SA)	Saudi Arabia	18	-	-	-	-	18	-	-	-	-	-	-	0.00
29	(SE)	Sweden	-	845	-	-	-	845	61	-	-	61	762	5.00	0.00
30	(SI)	Slovenia	-	66	-	-	-	66	3	-	-	3	44	0.00	0.00
31	(SK)	Slovakia	-	105	-	-	-	105	4	-	-	4	50	0.00	1.00
32	(US)	United States of America	91	4,715	-	-	-	4,806	247	-	-	247	3,087	22.00	0.00
33	(VG)	Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-
20	**Total**		**2,800**	**29,331**	**0**	**0**	**0**	**32,131**	**1,128**	**0**	**0**	**1,128**	**14,102**	**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 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 the 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. The CRR/CRD regulations form the basis for the minimum amount of own funds, as well as the calculation of own funds requirements. In order to comply with the own funds requirements, default risk (credit risk, counterparty credit risk, including CVA risk), market risk, operational risk and settlement risk must 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 internal ratings 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, it 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.

As at the end of 2021, 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. pbb Group's business strategy does not currently de-fine new securitisation transactions as a corporate objective.

Counterparty credit risk

pbb Group applies the standardised approach (SA-CCR) to the calculation of own funds requirements for counterparty credit risk pursuant to Part 3, Title II, Chapter 6 of the CRR (i.e. for derivative transactions) in accordance with Articles 274 et seqq. of the CRR.

pbb Group uses the standardised approach pursuant to Article 384 of the CRR to calculate the additional own funds requirement for OTC derivatives for credit valuation adjustment risk (CVA risk) according 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.

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

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 its own internal models

Operational risk

Capital backing for operational risk pursuant to Part 3, Title III of the CRR is calculated using the standardised approach in ac-cordance with Articles 317 et seqq. of the CRR at pbb Group. pbb does not currently use its own 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 pursuant to Article 438 (d) of the CRR shows the risk-weighted assets RWA) and the corresponding regulatory minimum own funds requirements broken down by risk type pursuant to Part 3 of the CRR.

Table EU CR10.5 pursuant to Article 438 (e) of the CRR also shows the 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 OV1: Overview of total risk exposure amounts

		a	b	c
		Risk weighted exposure amounts (RWA) [1]	Risk weighted exposure amounts (RWA) [1]	Total own funds requirements
All figures in € million		30.06.2022	31.03.2022	30.06.2022
1	**Credit risk (excluding CCR)**	**15,162**	**15,392**	**1,213**
2	thereof: the standardised approach	1,923	2,141	154
3	thereof: the foundation IRB (FIRB) approach	-	-	-
4	thereof: slotting approach	-	-	-
EU 4a	thereof: equities under the simple risk-weighted approach	0.1	0.1	0.01
5	thereof: the advanced IRB (AIRB) approach	13,239	13,251	1,059
6	**Counterparty credit risk**	**335**	**379**	**27**
7	thereof: the standardised approach [2]	119	151	10
8	thereof: internal model method (IMM)	-	-	-
EU 8a	thereof: exposures to a CCP [3]	1	3	0.1
EU 8b	thereof: credit valuation adjustment - CVA	191	218	15
9	thereof: other CCR [4]	24	7	2
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)**	**62**	**33**	**5**
21	thereof: the standardised approach	62	33	5
22	thereof: IMA	-	-	-
EU 22a	**Large exposures [5]**	**0**	**0**	**0**
23	**Operational risk**	**922**	**922**	**74**
EU 23a	thereof: basic indicator approach	-	-	-
EU 23b	thereof: standardised approach	922	922	74
EU 23c	thereof: advanced measurement approach	-	-	-
24	Amounts below the thresholds for deduction (subject to 250% risk weight) (For information) [6]	269	273	22
29	**Total**	**16,481**	**16,726**	**1,318**

[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 transactions/repurchase agreements).
[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).

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

	a	b	c	d	e	f
Categories **All figures in € million, unless otherwise stated**	**On-balancesheet exposure [1]**	**Off-balancesheet 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	0.02	-	370%	0.02	0.1	-
Total	**0.02**	**0**		**0.02**	**0.1**	**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).

Risk-weighted exposure amounts (RWA)

As at 30 June 2022, risk-weighted exposure amounts (RWA) of pbb Group across all risk types amount to € 16,481 million; this corresponds to a slight decline of € 245 million in the second quarter of 2022 (31 March 2022: € 16,726 million).

RWA amounts increased somewhat as far as credit risk (€ -230 million under the IRB and standardised approaches) is concerned, as a result of new business conducted in the commercial real estate financing business in the second quarter of 2022 as well as due to currency effects, especially with respect to the US dollar (USD). This increase was more than compensated for by offsetting effects, primarily due to syndications, repayments/maturities as well as changes in the allocation of risk exposures to exposure classes (corporates vs. small and medium-sized enterprises, SMEs). The decline of the counterparty credit risk (€ -44 million) is primarily attributable to the lower volume of derivatives; in this context, the increased interest rate level resulted in a lower fair value of the hedging derivatives. This was offset by the increase of reverse repo transactions (receivables from credit institutions). The increase in the market risk (€ +29 million) is mainly due to currency effects concerning the US dollar (USD). The operational risk remains unchanged compared to 31 March 2022; the regulatory own funds requirement is calculated once per year as at year-end.

Own funds requirements

The minimum own funds requirement for the above-mentioned risk types as at 30 June 2022 remained unchanged compared to 31 March 2022, at 8 % of RWA, amounting to a total of € 1,318 million (31 March 2022: € 1,338 million) as at the disclosure date. In line with pbb Group's business model, which focuses on commercial real estate finance and also on public investment finance, 94 % of the own funds requirement is attributable to default risks (including counterparty credit and CVA risks), with less than 1 % attributable to market risks and around 6 % to operational risks.

The total own funds requirement – including the capital conservation buffer (CCoB) of 2.5 %, the institution-specific countercyclical capital buffer (ICCB) of 0.02 % and the Pillar 2 capital requirement (P2R) of 2.5 % – remained unchanged as against the disclosure date of 31 March 2022 at 13.02 %, As at the disclosure date, it amounts to a total of € 2,146 million (31 March 2022: € 2,178 million).

Surplus own funds

The surplus own funds (own funds available less the own funds requirements pursuant to EU OV1) amount to € 2,385 million as at the disclosure date (31 March 2022: € 2,363 million).

Capital ratios

The information in this chapter on regulatory minimum capital ratios and regulatory minimum SREP capital requirements comple-ments the information in the chapter “Own funds” (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 2022, 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 the group of institutions within the meaning of section 10a of the KWG in conjunction with Articles 11 et seqq. 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 2022. As at 30 June 2022, the capital ratios are (EU CC1, lines 61 to 63):

- CET1 ratio: 17.2 % (31 December 2021: 17.1 %)
- Tier 1 ratio): 19.0 % (31 December 2021: 18.9 %)
- Own funds ratio: 22.5 % (31 December 2021: 22.4 %).

The ratios remain almost unchanged compared to year-end 2021; the reduction of regulatory own funds (€ -63 million compared to 31 December 2021) was offset by the slight decrease of risk-weighted exposure amounts (RWA: € -311 million).

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

SREP

pbb Group also complied with the minimum capital requirements of the ECB’s Supervisory Review and Evaluation Process (SREP), which extend beyond the existing regulatory requirements, at all times during the first half of 2022.

The aim of the Supervisory Review and Evaluation Process 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

As a material result of the SREP, in 2022, pbb Group is required to maintain a minimum CET1 ratio of 9.5 % (excluding the counter-cyclical capital buffer, which varies according to country, and hence, for specific portfolios). This capital requirement is based on the final Basel III requirements and comprises a Pillar 1 minimum capital requirement (4.5 %), a Pillar 2 capital requirement (P2R: 2.5 %) and the capital conservation buffer (CCB: 2.5 %).

The individual Pillar 2 capital requirement (P2R) for pbb Group remains unchanged over the previous year (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 P2R) and in the form of T1 capital of around 1.9 % (75.00 % of P2R).

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 a total capital requirement of an unchanged 13.0 % in 2022 (excluding the countercyclical capital buffer, which varies according to country, and hence, for specific portfolios). It is based on the final Basel III requirements and comprises the Pillar 1 minimum own funds requirement (8.0 %), the Pillar 2 capital requirement (P2R: 2.5 %) and the capital conservation buffer (2.5 %).

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.

According to 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 to include 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 2022.

Total exposure measure

The CRR forms the basis for calculating the total exposure measure of the leverage ratio. Based on the CRR, its 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 to 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. As at the reporting date of 30 June 2022, pbb Group had not agreed any securities lending/repo transactions, but had agreed reverse repo transactions in the amount of around € 2 billion.

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 standardised approach for credit risk of 0 %, 20 %, 50 % or 100 % depending on the risk category, with a lower limit 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 as at 30 June 2022 is 5.7 % (EU LR2-LRCom, line 25), meaning that it remains significantly ahead of the minimum requirement.

As at the disclosure date of 31 March 2022 (leverage ratio: 6.0 %), pbb Group applied the temporary relief (which applies for a fixed term until 31 March 2022) under Article 429a (1) (n) of the CRR for the last time, which allowed institutions to exclude exposures to Eurosystem central banks from the leverage ratio calculation subject to certain conditions. Without this exclusion of exposures to Eurosystem central banks, the leverage ratio as at the end of the first quarter was 5.6 % (31 December 2021: 5.5 %, see EU LR2-LRCom, line 25a). Since 1 April 2022, exposures vis-à-vis Eurosystem central banks have to be included in the leverage ratio again.

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

All figures in € million		a Applicable amount
1	**Total assets as per published financial statements [1)]**	**55,096**
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)) [3)]	-
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 [4)]	-1,904
9	Adjustment for securities financing transactions (SFTs) [5)]	-
10	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures) [6)]	1,593
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 [7)]	425
13	**Leverage ratio total exposure measure**	**55,210**

[1)] 1) Total assets reported in pbb's consolidated financial statements (IFRS).
[2)] There are no differences between the scope of prudential consolidation and the accounting scope of consolidation for pbb's consolidated financial statements (IFRS) as at the disclosure date.
[3)] Line 4: Exposures to Eurosystem central banks temporarily excluded from the calculation of the leverage ratio (since 28 June 2021, for a fixed term until 31 March 2022).
[4)] Line 8: Difference between the carrying value (IFRS) of the derivatives in the financial statements and the exposure value (EAD).
[5)] 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).
[6)] Line 10: Addition of off-balance sheet exposures after taking into account the credit conversion factor (CCF) based on the credit risk standardised approach.
[7)] 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 30.06.2022	b CRR leverage ratio exposures 31.12.2021
On-balance sheet exposures (excluding derivatives and SFTs)			
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	52,712	56,452
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)	-1,341	-1,561
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)	-86	-75
7	**Total on-balance sheet exposures (excluding derivatives and SFTs)**	**51,285**	**54,816**
Derivative exposures			
8	Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	94	158
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	276	276
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**	**370**	**434**
Securities financing transaction (SFT) exposures			
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	1,963	1,034
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
16	Counterparty credit risk exposure for SFT assets	-	1
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**	**1,963**	**1,035**
Other off-balance sheet exposures			
19	Off-balance sheet exposures at gross notional amount	3,101	3,301
20	(Adjustments for conversion to credit equivalent amounts)	-1,508	-1,570
21	(General provisions associated with off-balance sheet exposures deducted in determining Tier 1 capital)	-	-
22	**Off-balance sheet exposures**	**1,593**	**1,731**
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))	-	-5,466
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** **30.06.2022**	b **CRR leverage ratio exposures** **31.12.2021**
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**	**-5,466**
Capital and total exposure measure			
23	**Tier 1 capital**	**3,139**	**3,173**
24	**Leverage ratio total exposure measure**	**55,210**	**52,549**
Leverage ratio			
25	**Leverage ratio**	**5.7**	**6.0**
EU-25	Leverage ratio (excluding the impact of the exemption of public sector investments and promotional loans) (%)	5.7	6.0
25a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves)	5.7	5.5
26	Regulatory minimum leverage ratio requirement (%)	3.0	3.1
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	3.1
Choice on transitional arrangements and relevant exposures			
EU-27b	Choice on transitional arrangements for the definition of the capital measure	fully implemented	fully implemented
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)	1,734	1,288
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)	1,963	1,034
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)	54,981	52,804
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)	54,981	58,270
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) (%)	5.7	6.0
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) (%)	5.7	5.4

[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.
[3] The regulatory own funds as of 30 June 2022, which were understated by € 17 million, and the capital ratios were corrected on 20 October 2022. The original publication of the Disclosure Report as of 30 June 2022 was accordingly replaced.

EU LR3 - LRSpl: Split-up 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), thereof:**	**51,371**
EU-2	Trading book exposures [1]	-
EU-3	Banking book exposures, thereof:	51,371
EU-4	Covered bonds	339
EU-5	Exposures treated as sovereigns	17,768
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	2,565
EU-7	Institutions	1,751
EU-8	Secured by mortgages of immovable properties	27,134
EU-9	Retail exposures	1
EU-10	Corporate	1,179
EU-11	Exposures in default	396
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	237

[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 procedures and regulations 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 (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. Both 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. Scenarios in which the early warning threshold is undercut are designed to allow pbb Group 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). The Management Board of pbb is provided with information on the leverage ratio on a monthly basis in the Flash Report and on a quarterly basis in 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

The credit risk (credit risk, counterparty credit 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 credit risk includes the default risk, 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 risk exposures for which the risk-weighted exposure amounts were calculated according to the advanced IRB approach (IRBA), based on internal rating procedures, as well as those whose risk-weighted exposure amounts were calculated according to the standardised approach (CRSA) into account.

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 about 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 € 57,470 million as at 30 June 2022 (31 December 2021: € 60,272 million), including cash balances with central banks and other demand deposits (EU CR1, line 005). € 41,090 million out of this € 57.5 billion was attributable to loans and advances; debt securities contributed € 6,715 million, and an amount of € 3,142 million relates to off-balance sheet exposures such as loan commitments and financial guarantees.

Non-performing exposures

Non-performing loans and advances stood at € 591 million as at the disclosure date, based on gross carrying amounts, representing an increase of € 12 million during the 2022 first half year.

The total volume in the commercial real estate financing (Real Estate Finance, REF) business was down by € 11 million due to repayments, with counteracting currency effects for loans denominated in pound sterling and US dollars almost offsetting each other. In public-sector financings (Public Investment Finance, PIF), additions to loss allowance of € 55 million were made in relation to the war between Russia and Ukraine, of which, as at the disclosure date, around € 53 million was covered by export credit guarantees ex-tended by the Federal Republic of Germany. Residual claims in the amount of € 32 million referring to other loans of one borrower, which were also covered by export credit guarantees, were settled in full.

Stage 3 impairments recognised for non-performing loans and advances amounted to € 195 million, with collateral and financial guarantees received for this exposure standing at € 379 million.

NPL ratio

pbb Group's non-performing exposure (NPE) ratio was 1.2 % as at 30 June 2022, up 0.1 percentage points compared to 31 December 2021. Its non-performing loan (NPL) ratio, which includes exclusively receivables (loans and advances), but no debt securities or off-balance sheet exposures, remains unchanged at 1.4 %. These ratios are calculated pursuant to Article 8 no. 4 of the Pillar 3 Framework, 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 guaran-tees 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 perform-ing expo-sures**	**On non-perform-ing expo-sures**
All figures in € million			**there-of: stage 1**	**there-of: stage 2**		**there-of: stage 2**	**there-of: stage 3**		**there-of: stage 1**	**there-of: stage 2**		**there-of: stage 2**	**there-of: stage 3**			
005	Cash balances at central banks and other demand deposits	6,524	6,524	-	-	-	-	-	-	-	-	-	-	-	-	-
010	**Loans and advances**	**40,499**	**32,553**	**7,597**	**591**	**0**	**591**	**-156**	**-49**	**-108**	**-195**	**0**	**-195**	**0**	**28,735**	**379**
020	Central banks [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030	General governments	8,389	8,130	117	-	-	-	-22	-	-22	-	-	-	-	152	-
040	Credit institutions	2,506	2,506	-	-	-	-	-	-	-	-	-	-	-	543	-
050	Other financial corporations	1,021	750	271	27	-	27	-1	-	-1	-	-	-	-	986	27
060	Non-financial corporations	28,578	21,161	7,210	563	-	563	-133	-48	-85	-195	-	-195	-	27,049	351
070	thereof: SMEs	8,844	6,851	1,926	119	-	119	-45	-16	-28	-33	-	-33	-	8,693	69
080	Households	5	5	-	1	-	1	-	-	-	-	-	-	-	5	1
090	**Debt securities**	**6,715**	**6,590**	**0**	**0**	**0**	**0**	**-1**	**-1**	**0**	**0**	**0**	**0**	**0**	**1,241**	**0**
100	Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
110	General governments	5,083	5,000	-	-	-	-	-1	-1	-	-	-	-	-	531	-
120	Credit institutions	1,603	1,564	-	-	-	-	-	-	-	-	-	-	-	709	-
130	Other financial corporations	29	26	-	-	-	-	-	-	-	-	-	-	-	-	-
140	Non-financial corporations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150	**Off-balance-sheet exposures**	**3,142**	**2,186**	**914**	**0**	**0**	**0**	**-28**	**-10**	**-18**	**0**	**0**	**0**	—	**2,617**	**0**
160	Central banks	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-
170	General governments	166	125	-	-	-	-	-	-	-	-	-	-	—	-	-
180	Credit institutions	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-
190	Other financial corporations	164	93	70	-	-	-	-1	-	-1	-	-	-	—	158	-
200	Non-financial corporations	2,812	1,968	844	-	-	-	-27	-10	-17	-	-	-	—	2,459	-
210	Households	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-
220	**Total [4]**	**56,879**	**47,852**	**8,511**	**591**	**0**	**591**	**-185**	**-60**	**-126**	**-195**	**0**	**-195**	**0**	**32,592**	**379**

[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 that several debtors entered into jointly, classification is based on the relevant or decisive borrower.
[4] Including "Cash balances with 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]	1,015	8,422	17,618	13,683	-	40,738
020	Debt securities	-	1,067	1,739	3,905	3	6,714
030	**Total**	**1,015**	**9,490**	**19,357**	**17,587**	**3**	**47,452**

[1] Net exposure value: gross carrying value 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 risk position, 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]**	**579**
020	Inflows to non-performing portfolios [3]	56
030	Outflows from non-performing portfolios [4]	-34
040	Outflows due to write-offs	-
050	Outflow due to other situations [5]	-10
060	**Final stock of non-performing loans and advances [6]**	**591**

[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 con-version 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 credit risk adjustments. In addition, the tables provide information on collateral and financial guarantees received as well as breakdowns by counterparty, geography (country) and industry (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 clearly 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 regularly checks if further disclosure requirements apply when the 5 % threshold for the NPL ratio is 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. As before, pbb Group did not hold any foreclosures or other seized collateral as at 30 June 2022.

Defaulted and non-defaulted exposures

The gross carrying amounts of on-balance sheet (loans and advances, debt securities) and off-balance sheet credit exposures (loan commitments) totalled € 50,947 million as at 30 June 2022.

Performing exposures accounted for € 50,356 million or 99 %, the defaulted exposures for € 591 million. Level 3 impairments of € 195 million have already been recognised for the defaulted exposures, whilst the collateral and financial guarantees received amount to € 379 million.

According to the IRB approach, credit exposures are considered “defaulted” if a borrower has defaulted pursuant to 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 %.

Under IFRS 9, the same definition of default 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 according to Article 178 of the CRR are also viewed as “non-performing” by pbb Group. Therefore, the aforementioned defaulted exposures in the amount of € 591 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 2022, the recognised stage 3 impairments amount to € 195 million (€ +24 million compared to 31 December 2021), and the gross carrying amount of impaired exposures was € 591 million.

The additions to stage 3 impairments mostly referred to financings of shopping centres in the UK and resulted, amongst other factors, from the assumption of lower proceeds from disposals in light of the changed interest rate levels and investor sentiment.

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.

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 are partially or fully past due as at the disclosure date amount to a total of € 592 million (gross carrying amount), whereas the exposures past due (and non-performing) for more than 90 days amount to € 241 million. The exposures past due for more than 90 days are also deemed to be impaired.

Forborne (restructured) exposures

On-balance sheet and off-balance sheet exposures with forbearance measures amount to a total of € 2,374 million (gross carrying amount) as at the disclosure date, of which € 1,853 million qualifies as performing and € 520 million as non-performing (or defaulted) loans. Impairments of € 183 million have been recognised for the non-performing, forborne exposures.

Collateral and financial guarantees for exposures with forbearance measures amount to € 2,473 million, of which € 323 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 unit is responsible for managing the default risk of restructured loans.

Write-offs

pbb Group did not write down (impair) financial assets in the first half of 2022.

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 within the course of 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-down expo-sures by means of enforcement measures.

Impact of the Ukraine war

The war between Russia and Ukraine has no immediate effects on pbb Group, since the Group has no direct exposure to borrowers domiciled in Russia, Belarus or Ukraine, nor has it financed any properties in these countries. Moreover, pbb has not extended any financings to persons included on the European Union’s sanctions list as at the reporting date. pbb Group has three Russia-related public investment financings with a gross carrying amount totalling € 59 million in its portfolio, of which two financings are fully guaranteed and one financing is broadly guaranteed by Euler-Hermes, the Federal Republic of Germany’s export credit agency. The uncovered portion amounted to just under € 3 million, of which more than € 2 million was already impaired at stage 3 level in the first quarter of 2022.

However, the war between Russia and Ukraine and the associated reciprocal sanctions have macroeconomic consequences such as lower economic growth, a significant rise in inflation, higher interest rates, and supply chain issues: all of these could have indirect effects on pbb Group's financings. In order to determine expected credit losses, pbb Group has taken forecasts of the future economic environment into account. With regard to stage 1 and stage 2 impairments, three scenarios have been applied and weighted according to their probability: a baseline (55 %), a positive (5 %), and a negative scenario (40 %). The models include cur-rent expectations by the ECB and other central banks concerning future unemployment rates, interest rate levels, GDP and real estate market values. The negative scenario (weighted 40 %) includes important components of the ECB’s scenario that forecasts an end to Russian gas flows (or a gas embargo).

Due to the war, any assessment of the future development is currently characterised by particularly high uncertainty. The negative scenario, for example, assumes a recession and that central banks will lower their interest rates to support the economy. The model-based stage 1 and 2 risk provisioning, as a rule, is based on this assumption.

But despite the tense economic situation, interest rates might also be raised to combat inflation. Rising interest levels amid a tense economic situation – a situation known as stagflation – may have a negative impact upon the market value of pbb Group’s real estate collateral, and hence potential realisation proceeds.

In order to take the risk of stagflation, which pbb Group views as a real threat, and the overall high uncertainty into account, pbb Group recognised a management overlay in the Real Estate Finance (REF) segment of € 42 million, based on the constant application of its credit risk model, resulting in increased stage 1 and stage 2 impairments. The size of the management overlay was derived from the negative scenario (weighted at 40 %) and assuming another significant interest rate hike.

At the same time, pbb Group completely reversed – effective 31 December 2021 – the management overlay in the amount of € 54 million to consider delayed defaults and bankruptcies following government support measures to mitigate the economic consequences of the COVID-19 pandemic. This decision was based on the almost complete withdrawal of COVID-19-related social restrictions and hence the significantly lowered risk of credit defaults in connection with the pandemic.

EU CQ1: Credit quality of forborne exposures

All figures in € million		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**
				thereof: defaulted	**thereof: impaired**				
005	Cash balances at central banks and other demand deposits	-	-	-	-	-	-	-	-
010	**Loans and advances**	**1,846**	**520**	**520**	**520**	**-23**	**-183**	**2,143**	**323**
020	Central banks	-	-	-	-	-	-	-	-
030	General governments	-	-	-	-	-	-	-	-
040	Credit institutions	-	-	-	-	-	-	-	-
050	Other financial corporations	93	-	-	-	-	-	93	-
060	Non-financial corporations	1,752	520	520	520	-23	-183	2,049	323
070	Households	-	-	-	-	-	-	-	-
080	**Debt Securities**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
090	**Loan commitments given**	**8**	**0**	**0**	**0**	**0**	**0**	**8**	**0**
100	**Total**	**1,853**	**520**	**520**	**520**	**-23**	**-183**	**2,150**	**323**

[1] Gross carrying amount (nominal value for credit 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 credit 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)]**		**47,805**	**591**	**591**	**47,332**	**-353**	**—**	**0**
1	(AT)	Austria	4,998	-	-	4,996	-	—	-
2	(DE)	Germany	15,251	37	37	15,042	-42	—	-
3	(ES)	Spain	1,529	-	-	1,529	-2	—	-
4	(FR)	France	7,255	-	-	7,207	-18	—	-
5	(GB)	United Kingdom	1,142	159	159	1,098	-92	—	-
6	(IT)	Italy	1,552	14	14	1,470	-12	—	-
7	(JE)	Jersey	600	83	83	600	-32	—	-
8	(LU)	Luxemburg	3,592	99	99	3,589	-87	—	-
9	(NL)	Netherlands	1,146	40	40	1,146	-1	—	-
10	(PL)	Poland	1,563	37	37	1,563	-4	—	-
11	(SE)	Sweden	822	-	-	822	-2	—	-
12	(US)	United States of America	4,707	67	67	4,659	-30	—	-
13		Other countries [5)]	3,648	55	55	3,611	-31	—	-
020	**Off-balance-sheet exposures [4)]**		**3,142**	**0**	**0**	—	—	**-28**	—
1	(DE)	Germany	1,810	-	-	—	—	-21	—
2	(FR)	France	461	-	-	—	—	-3	—
3	(JE)	Jersey	48			—	—	-	—
4	(LU)	Luxemburg	307	-	-	—	—	-3	—
5	(PL)	Poland	71			—	—	-	—
6	(SE)	Sweden	120	-	-	—	—	-	—
7	(US)	United States of America	242			—	—	-1	—
8		Other countries [6)]	83	-	-	—	—	-	—
030	**Total**		**50,947**	**591**	**591**	**47,332**	**-353**	**-28**	**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, Switzerland, Cameroon, Czech Republic, Denmark, Finland, Guernsey, Ghana, Gibraltar, Japan, Cayman Islands, Liechtenstein, Latvia, Mauritius, Oman, Portugal, Romania, Saudi Arabia, Slovenia, Slovakia 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: Switzerland, Spain, Finland, Italy and Netherlands.

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

		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		
All figures in € million				thereof: defaulted			
010	Agriculture, forestry and fishing [2] [3]	-	-	-	-	-	-
020	Mining and quarrying	-	-	-	-	-	-
030	Manufacturing	55	-	-	55	-	-
040	Electricity, gas, steam and air conditioning supply	48	-	-	48	-	-
050	Water supply	166	-	-	166	-	-
060	Construction	288	-	-	288	-2	-
070	Wholesale and retail trade	102	-	-	102	-	-
080	Transport and storage	89	29	29	89	-2	-
090	Accommodation and food service activities	150	-	-	106	-2	-
100	Information and communication	14	-	-	14	-	-
110	Financial and insurance actvities	-	-	-	-	-	-
120	Real estate activities	27,344	534	534	27,181	-321	-
130	Professional, scientific and technical activities	110	-	-	110	-	-
140	Administrative and support service activities	113	-	-	113	-1	-
150	Public administration and defense, compulsory social security	-	-	-	-	-	-
160	Education	71	-	-	71	-	-
170	Human health services and social work activities	531	-	-	531	-	-
180	Arts, entertainment and recreation	55	-	-	55	-	-
190	Other services	3	-	-	3	-	-
200	**Total**	**29,141**	**563**	**563**	**28,934**	**-328**	**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 sectors 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) No. 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 2021 (sections "Valuation and management of eligible collateral" and "On-balance sheet and off-balance sheet netting", pages 108 et seqq.).

Main collateral used within credit risk mitigation

The strategic business segments of pbb Group are Real Estate Finance (REF) and Public Investment Finance (PIF); the focus is 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 further accepts guarantees and financial collateral (mainly cash collateral, partly securities) for collateralisation purposes. Financial collateral is used in netting agreements for derivatives and securities financing transactions (securities lending/repo transactions).

As in the previous year, pbb Group did not execute hedging transactions with credit derivatives (purchased or sold credit collateral), either as protection buyer or 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 LGD calculation when assessing the loss given default in the event of default. Financial collateral is taken into account to reduce credit risk when determining exposure values (exposure at default (EAD)). Guarantees are taken 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 a receivable.

Besides property liens, collateral provided for financings in the REF segment also includes assignments of rental payments as well as insurance benefits which, however, are not taken into account for credit risk mitigation purposes pursuant to 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 all 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 (broken down into loans and advances as well as debt securities), for which pbb Group calculates risk-weighted exposure amounts in line with the advanced IRB approach (IRBA) based on the Bank-internal rating procedure 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; see “Credit risk – Standardised approach”), whilst table EU CR7-A outlines the impact for exposures under the IRB approach (see “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 does not comprise credit derivatives as at the reporting 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	11,625	29,113	27,412	1,701	-
2	Debt securities	5,473	1,241	0	1,241	———
3	**Total**	**17,098**	**30,354**	**27,412**	**2,942**	**-**
4	thereof: non-performing exposures	17	379	327	51	-
5	thereof: defaulted	17	379	———	———	———

1) EU CR3 shows the net value of exposures: gross carrying value 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 the Bank-internal rating procedure pursuant to Articles 142 et seqq. – for the following portfolios.

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 a receivable. 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

		a	b	c	d	e	f
	Exposure classes	**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	12,828	-	14,547	-	53	0.36
2	Regional government or local authorities	4,744	125	5,557	63	440	7.83
3	Public sector entities	1,728	-	1,568	-	126	8.06
4	Multilateral development banks	542	-	542	-	-	-
5	International organisations	213	-	213	-	-	-
6	Institutions	1,032	-	83	-	21	24.92
7	Corporates	1,849	57	544	31	547	95.24
8	Retail	-	-	-	-	-	75.00
9	Secured by mortgages on immovable property	495	44	495	22	177	34.31
10	Exposures in default	54	-	1	-	1	116.20
11	Exposures associated with particularly high risk	122	49	122	25	220	150.00
12	Covered bonds	339	-	339	-	34	10.00
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
14	Collective investment undertakings	3	-	3	-	34	1,250.00
15	Equity	-	-	-	-	-	-
16	Other items [5]	108	-	108	-	269	250.00
17	**Total**	**24,055**	**276**	**24,120**	**141**	**1,923**	**7.93**

[1] Net value of CRSA exposures: gross carrying amounts 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	14,289	-	-	-	257	-	-	-	-	2	-	-	-	-	-	14,547	5,812
2	Regional government or local authorities	3,420	-	-	-	2,199	-	-	-	-	-	-	-	-	-	-	5,619	4,304
3	Public sector entities	1,099	-	-	-	416	-	18	-	-	34	-	-	-	-	-	1,568	1,418
4	Multilateral development banks	542	-	-	-	-	-	-	-	-	-	-	-	-	-	-	542	-
5	International organisations	213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	213	-
6	Institutions	-	-	-	-	69	-	14	-	-	-	-	-	-	-	-	83	64
7	Corporates	16	-	-	-	1	-	1	-	-	557	-	-	-	-	-	575	530
8	Retail exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Exposures secured by mortgages on immovable property	-	-	-	-	-	449	68	-	-	-	-	-	-	-	-	517	517
10	Exposures in default	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1
11	Exposures associated with particularly high risk	-	-	-	-	-	-	-	-	-	-	147	-	-	-	-	147	-
12	Covered bonds	-	-	-	339	-	-	-	-	-	-	-	-	-	-	-	339	-
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]	-	-	-	-	-	-	-	-	-	-	-	108	-	-	-	108	-
17	**Total**	**19,579**	**0**	**0**	**339**	**2,942**	**449**	**101**	**0**	**0**	**593**	**147**	**108**	**0**	**3**	**0**	**24,261**	**12,650**

[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 on 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 the Bank-internal rating procedure 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 2021 (section “Approved IRB approaches”, pages 115 et seqq.).

Quantitative information on credit exposures in 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 changes in RWA in the second quarter of 2022 and highlights the main reasons for these changes.

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

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	**PD range [1)]**	**On-balance sheet expo-sures [2)]**	**Off-balance-sheet expo-sures 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 adjust-ments and provisions**
All figures in € million, unless otherwise stated													
Corporates - SMEs	0.00 to <0.15	30	-	-	29	0.09	19	2.98	4	1	1.74	-	-
	0.00 to <0.10	9	-	-	9	0.05	3	3.16	4	-	1.08	-	-
	0.10 to <0.15	21	-	-	21	0.10	16	2.91	4	-	2.01	-	-
	0.15 to <0.25	66	5	0.50	68	0.20	40	4.34	4	3	4.07	-	-
	0.25 to <0.50	938	31	0.52	952	0.43	74	7.10	4	93	9.82	-	-
	0.50 to <0.75	-	-	-	-	-	-	-	-	-	-	-	-
	0.75 to <2.50	402	131	0.53	471	1.01	29	7.19	4	69	14.60	-	-
	0.75 to <1.75	402	131	0.53	471	1.01	29	7.19	4	69	14.60	-	-
	1.75 to <2.5	-	-	-	-	-	-	-	-	-	-	-	-
	2.50 to <10.00	1	-	-	1	4.55	2	5.79	2	-	12.19	-	-
	2.5 to <5	-	-	-	-	2.50	1	15.59	3	-	31.41	-	-
	5 to <10	-	-	-	-	5.00	1	3.63	2	-	7.96	-	-
	10.00 to <100.00	-	-	-	-	17.50	1	9.69	5	-	39.16	-	-
	10 to <20	-	-	-	-	17.50	1	9.69	5	-	39.16	-	-
	20 to <30	-	-	-	-	-	-	-	-	-	-	-	-
	30.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	100.00 (Default)	7	-	-	7	100.00	3	21.36	5	4	62.50	1	1
Subtotal		**1,443**	**167**	**0.53**	**1,528**	**1.04**	**168**	**6.99**	**4**	**170**	**11.12**	**2**	**2**

A-IRB	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range [1)]	**On-balance sheet expo-sures [2)]**	**Off-balance-sheet expo-sures 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 adjust-ments and provisions**
All figures in € million, unless otherwise stated													
Corporates - specialised lending [10)]	0.00 to <0.15	105	-	-	105	0.10	3	9.07	3	4	3.46	-	-
	0.00 to <0.10	-	-	-	-	-	-	-	-	-	-	-	-
	0.10 to <0.15	105	-	-	105	0.10	3	9.07	3	4	3.46	-	-
	0.15 to <0.25	781	23	0.50	793	0.20	21	19.35	3	156	19.68	-	-
	0.25 to <0.50	6,594	227	0.54	6,706	0.40	126	21.89	3	1,818	27.32	6	5
	0.50 to <0.75	-	-	-	-	-	-	-	-	-	-	-	-
	0.75 to <2.50	8,893	601	0.61	9,258	1.34	165	26.28	3	4,750	51.30	32	33
	0.75 to <1.75	7,046	515	0.62	7,367	1.17	141	27.44	3	3,854	52.30	24	22
	1.75 to <2.5	1,848	86	0.50	1,891	2.00	24	21.77	3	896	47.40	8	11
	2.50 to <10.00	6,817	1,693	0.70	8,002	4.17	130	24.15	2	5,275	65.93	80	112
	2.5 to <5	4,428	673	0.71	4,909	3.14	81	25.14	3	3,242	66.04	39	48
	5 to <10	2,389	1,021	0.69	3,093	5.82	49	22.58	2	2,034	65.76	41	63
	10.00 to <100.00	342	72	0.50	378	14.95	8	33.28	1	431	114.08	19	9
	10 to <20	283	14	0.50	290	11.33	6	32.76	1	295	101.60	11	8
	20 to <30	59	57	0.50	87	27.00	2	35.00	1	136	155.61	8	-
	30.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	100.00 (Default)	527	-	-	527	100.00	9	42.67	1	329	62.50	225	192
Subtotal		**24,060**	**2,615**	**0.66**	**25,768**	**4.15**	**462**	**24.63**	**3**	**12,763**	**49.59**	**362**	**351**

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	**PD range [1]**	**On-balance sheet expo-sures [2]**	**Off-balance-sheet expo-sures 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 adjust-ments and provisions**
All figures in € million, unless otherwise stated													
Corporates - others	0.00 to <0.15	830	-	-	782	0.08	22	10.57	4	53	6.81	-	-
	0.00 to <0.10	372	-	-	362	0.05	8	0.53	4	1	0.38	-	-
	0.10 to <0.15	458	-	-	420	0.10	14	19.22	3	52	12.35	-	-
	0.15 to <0.25	638	3	0.50	637	0.20	16	2.78	5	28	4.33	-	-
	0.25 to <0.50	449	-	-	449	0.31	19	24.73	4	187	41.66	-	-
	0.50 to <0.75	-	-	-	-	-	-	-	-	-	-	-	-
	0.75 to <2.50	69	40	0.50	89	1.00	6	14.57	4	37	42.11	-	-
	0.75 to <1.75	69	40	0.50	89	1.00	6	14.57	4	37	42.11	-	-
	1.75 to <2.5	-	-	-	-	-	-	-	-	-	-	-	-
	2.50 to <10.00	-	-	-	-	5.00	1	120.00	1	-	372.84	-	-
	2.5 to <5	-	-	-	-	-	-	-	-	-	-	-	-
	5 to <10	-	-	-	-	5.00	1	120.00	1	-	372.84	-	-
	10.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	10 to <20	-	-	-	-	-	-	-	-	-	-	-	-
	20 to <30	-	-	-	-	-	-	-	-	-	-	-	-
	30.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
	100.00 (Default)	1	-	-	1	100.00	2	-	1	1	62.50	-	-
Subtotal		**1,987**	**42**	**0.50**	**1,957**	**0.25**	**66**	**11.46**	**4**	**306**	**15.62**	**1**	**0**
Total (all exposures classes)		**27,489**	**2,824**	**0.65**	**29,253**	**3.73**	**696**	**22.83**	**3**	**13,239**	**45.30**	**365**	**352**

[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 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	29,253	-	98.32	98.32	-	-	-	-	-	-	-	-	13,239	13,239
3.1	thereof: Corporates – SMEs	1,528	-	99.81	99.81	-	-	-	-	-	-	-	-	170	170
3.2	thereof: Corporates – Specialised lending	25,768	-	98.49	98.49	-	-	-	-	-	-	-	-	12,763	12,763
3.3	thereof: Corporates – Other	1,957	-	94.96	94.96	-	-	-	-	-	-	-	-	306	306
4	Retail	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	**Total**	**29,253**	**0**	**98.32**	**98.32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13,239**	**13,239**

[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 relevant 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 relevant 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 (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, guarantees and public-sector financing).

The EAD is calculated for all receivables, irrespective of whether a default event has, in fact, already occurred or not.

The EAD for on-balance sheet and off-balance sheet IRBA credit exposures amounts to € 29,253 million (€ +711 million as against 31 December 2021 and € +296 million as against 31 March 2022), and the RWAs amount to € 13,239 million (€ +82 million as against 31 December 2021 and € -12 million as against 31 March 2022). Accordingly, the figures are on the level reported as at the end of the first quarter 2022. The main reasons behind the slight reduction in RWA in the second quarter of 2022 (€ -12 million) are shown in table EU CR8.

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

		a
All figures in € million		Risk weighted exposure amount [1]
1	**Risk weighted exposure amount as at 31.03.2022**	**13,251**
2	Asset size (+/-)	577
3	Asset quality (+/-)	-145
4	Model updates (+/-)	-
5	Methodology and policy (+/-)	-
6	Acquisitions and disposals (+/-)	-
7	Foreign exchange movements (+/-)	142
8	Other (+/-)	-586
9	**Risk weighted exposure amount as at 30.06.2022**	**13,239**

[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 increased RWA under the IRB approach was new business generated in the Commercial Real Estate Finance segment in the second quarter of 2022 which significantly exceeded repayments/maturities (EU CR8, line 2). Furthermore, currency effects, above all regarding the US dollar (USD), led to an increase RWA (EU CR8, line 7). Offsetting effects arose following PD/LGD rating improvements (EU CR8, line 3) as well as other effects such as changes in the allocation of exposures to the exposure classes “Corporates” and “Small and medium-sized enterprises” (SME), syndications and lower development financing volumes (EU CR8, line 8).

RWA density

The average RWA density for the IRBA credit exposures is 45.3 % (31 December 2021: 45.8 %), although the IRBA exposure classes “central governments and central banks”, “institutions” and “retail exposures” do not apply within 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 RWAs 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 its 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 3.73 % (31 December 2021: 3.76 %).

LGD

The loss given default (LGD) indicates the expected rate of loss that pbb Group will incur in the event that a customer defaults. The LGD averages 22.8 % for the credit exposures based on the IRB approach (31 December 2021: 22.3 %).

CCF

The undrawn IRBA loan commitments amount to a total of € 2,824 million (31 December 2021: € 2,889 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 65 % (31 December 2021: 65 %).

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/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) to the calculation of own funds requirements for counterparty credit risk pursuant to Part 3, Title II, Chapter 6 of the CRR (for derivative transactions) in accordance with Articles 274 et seqq. of the CRR.

pbb Group uses the standardised approach pursuant to Article 384 of the CRR to calculate the additional own funds requirement for OTC derivatives for credit valuation adjustment risk (CVA risk) according 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.

As at the disclosure date of 30 June 2022, pbb Group had not agreed any securities lending/repo transactions, but had agreed reverse repo transactions in the amount of around € 2 billion.

Qualifying central counterparty

When it comes to calculating the own funds requirements for pre-funded contributions to the default fund of a qualifying central counterparty, pbb Group applies the risk-sensitive approach in accordance with Article 308 of the CRR.

Quantitative disclosures 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 2022.

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 protection), either as protection buyer or 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 exposure value (EAD) for counterparty credit risk, excluding initial margin and default fund contributions, amounts to € 402 million (€ -21 million compared to 31 December 2021), € 127 million (31 December 2021: € 77 million) of which relates to exposures to the central counterparty Eurex Clearing.

A key influencing factor for the decrease of the exposure amounts compared to year-end 2021 is the lower volume of derivatives; in this context, the increased interest rate levels resulted in a lower fair value of the hedging derivatives. This was offset by the increase of reverse repo transactions (receivables from credit institutions).

Of the total of € 402 million, an amount of € 388 million refers to exposures that are recorded under the standardised approach (CRSA) (see EU CCR3), and an amount of € 14 million to exposures for which pbb Group calculates RWA under the advanced IRB approach (IRBA) based on Bank-internal rating procedures (see EU CCR4).

The exposures for contributions to Eurex Clearing's default fund amount to approximately € 7 million (EU CCR8). 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).

The exposure values (exposure at default, EAD) for the CVA risk amounts to € 209 million (EU CCR2). 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.

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 contracts which serve to minimise the legal risk, as well as the economic and regulatory default risk and which enable mutual risks to be netted (netting). In doing so, the positive and negative market values of all contracts included in one netting arrangement may be netted, and the future regulatory risk premiums for these products may be reduced. As a result of the netting process, the default risk is reduced to one single net receivable from the counterparty. pbb Group does not use cross-product netting (derivatives versus securities financing transactions).

In line with the netting contracts, pbb Group also enters into standard market collateral agreements (German Collateral Annex to the DRV or ISDA Collateral Support Annex) with certain counterparties 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 partly 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)]	64	128	———	1.4	769	233	230	119
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]	———	———	———	———	649	44	44	22
5	VaR for SFTs	———	———	———	———	-	-	-	-
6	**Total**	———	———	———	———	**1,418**	**277**	**275**	**141**

[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 (this 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 after netting and after credit risk mitigation (collateral received), and also including CVA losses recognised in the income statement.
SFTs (line 4): Exposure 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

All figures in € million, unless otherwise stated		a **Exposure value [1]**	b **RWA [2]**
1	**Exposures to QCCPs (total)**	—	**4**
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); thereof	127	3
3	(i) OTC derivatives	15	-
4	(ii) Exchange-traded derivatives	-	-
5	(iii) SFTs	112	2
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	1
19	Prefunded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

[1] Exposure amount (exposure at default, EAD), excluding exposures to non-CCPs.
[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)]	209	191
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**	**209**	**191**

[1)] pbb uses the standardised method 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 amount (exposure at default, EAD), the relevant amount (this 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. The exposure values vis-à-vis Eurex Clearing are shown in the standardised approach, among other things (“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	1	-	-	-	-	-	-	-	-	-	-	1
3	Public sector entities	-	-	-	-	-	-	-	-	-	-	-	-
4	Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-
6	Institutions	-	127	-	-	17	237	-	-	-	-	-	380
7	Corporates	1	-	-	-	-	-	-	-	6	-	-	7
8	Retail	-	-	-	-	-	-	-	-	-	-	-	-
9	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-
10	Other items	-	-	-	-	-	-	-	-	-	-	-	-
11	**Total exposure value**	**2**	**127**	**0**	**0**	**17**	**237**	**0**	**0**	**6**	**0**	**0**	**388**

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. As before, 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

	Exposure class	PD scale [1]	a	b	c	d	e	f	g
All figures in € million, unless otherwise stated			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	-	0.10	2	56.01	1	-	22.31
2		0.15 to <0.25	1	0.20	4	56.01	4	1	73.16
3		0.25 to <0.50	3	0.37	30	56.01	3	2	73.36
4		0.50 to <0.75	-	-	-	-	-	-	-
5		0.75 to <2.50	5	1.28	34	56.01	3	6	116.59
6		2.50 to <10.00	3	2.86	15	56.01	3	4	146.90
7		10.00 to <100.00	-	12.50	2	56.01	1	-	178.76
8		100.00 (Default)	-	-	-	-	-	-	-
	Sub-total		**12**	**1.39**	**87**	**56.01**	**3**	**13**	**108.42**
1	**Corporates - Specialised Lending**	0.00 to <0.15	1	0.07	3	56.01	4	1	47.17
2		0.15 to <0.25	1	0.20	1	56.01	5	-	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		**2**	**0.11**	**4**	**56.01**	**4**	**1**	**58.19**
Total (all CCR-relevant risk position classes) [7]			**14**	**1.22**	**91**	**56.01**	**3**	**14**	**101.61**

[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 amount in column (a).
[4] Exposure value-weighted average loss given default (LGD), weighted using the exposure amount 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.

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	-	291	-	1,436	-	39	-	-
2	Cash – other currencies	-	65	-	-	-	-	-	-
3	Domestic sovereign debt	-	-	-	-	-	-	-	-
4	Other sovereign debt	-	-	-	-	-	617	-	-
5	Government agency debt	-	-	-	-	-	-	-	-
6	Corporate bonds	-	-	-	-	-	-	-	-
7	Equity securities	-	-	-	-	-	-	-	-
8	Other collateral	-	-	-	-	-	465	-	-
9	**Total**	**0**	**356**	**0**	**1,436**	**0**	**1,122**	**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 2022, pbb Group still has no exposures from securitisations in its portfolio. As a result, the information and tables pursuant to Article 449 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 2022 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 currency 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 internal models (IMA) for calculating 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 (the risk arising from changes in interest rates) apply to pbb Group's operations, as illustrated in table EU MR1 (be-low) 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 its own funds requirements.

pbb Group is currently not using any internal models (IMA) pursuant to Articles 362 et seqq. for calculating 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 assets (RWAs) for pbb Group's market risk.

The own funds requirement for market risks as at the disclosure date remains unchanged at approximately € 5 million (31 December 2021: € 5 million). The foreign currency exposure remains at the level reached as at year-end 2021 (RWA increase of € +3 million compared to 31 December 2021). The slight increase is primarily attributable to currency effects from the US dollar (USD).

EU MR1: Market risk using 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	62	5
4	Commodity risk	-	-
	Options		
5	Simplified approach	-	-
6	Delta-plus approach	-	-
7	Scenario approach	-	-
8	Securitisation (specific risk)	-	-
9	**Total**	**62**	**5**

Interest rate risk in the banking book

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

However, in the absence of a regulatory own funds requirement, pbb Group nevertheless applies the same methods and processes for interest rate risk in the banking book as for market risk, as set out in the chapter “Market risk management” in the Disclosure Report as at 31 December 2021 (pages 141 et seqq.). As set out therein, pbb also incorporates periodic interest rate risks in parallel with present value interest rate risks, and measures, manages and monitors these risks on a regular basis.

pbb is directly supervised by the ECB and meets the additional own funds requirements and capital requirements under the ECB’s Supervisory Review and Evaluation Process (SREP).

Risk metrics

Interest rate risk at present value

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 rates, and includes the risk of yield curve shifts (gap risk), base risk and option risk. Interest rate risk at present value 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 rates. Compliance with sensitivity triggers and Value at Risk (VaR) limits is also checked on a daily basis and reported to pbb’s Management Board. The internal and regulatory stress scenarios for interest rate risk in the banking book, including the six interest rate scenarios prescribed by the EBA Guidelines EBA/GL/2018/02, 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 curve 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). 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 disclosure period from 31 December 2021 to 30 June 2022. 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.

Interest rate risk at present value

Under the assumptions made above in accordance with EBA/GL/2018/02, the largest potential change in present value as at 30 June 2022 arises from the interest rate shock scenario simulating a parallel upward shift in the yield curve. In this scenario, the present value loss in the banking book amounts to € 246 million.

Periodic interest rate risk

Looking at periodic interest rate risks, a sudden parallel upward shift of the yield curve would benefit delta static NII. In case of a parallel shift in the yield curve by +200 basis points or -200 basis points (with a dynamic interest rate floor in accordance with EBA/GL/2018/02), the change in delta static NII as at 30 June 2022 amounts to a total of € 104 million or € -18 million, respectively. The delta as regards net interest income declined compared to the previous year. This is attributable to the end of the applicability of the special conditions for the Targeted Longer Term Refinancing Operations (TLTRO III) and to the changed interest rate levels.

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		**30.06.2022**	**31.12.2021**	**30.06.2022**	**31.12.2021**
1	Parallel up	-246	-368	104	122
2	Parallel down	164	110	-18	38
3	Steepener	-25	-10	-	-
4	Flattener	-10	-15	-	-
5	Short rate up	-81	-128	-	-
6	Short rate down	63	98	-	-

[1] ∆ EVE: This is a metric measuring changes – in the net present value of all instruments in the banking book sensitive to interest rates – resulting from sudden interest rate movements, assuming that all banking book positions run off.
[2] ∆ NII: This is an earnings-based metric measuring changes in the net interest income originating from sudden interest rate changes for 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 a liquidity buffer in the form of high-quality liquid assets, in order to be able to compensate for net cash outflows under stressed conditions over a period of thirty 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 first half of 2022 significantly exceeded 100 % at all times. As at the disclosure date of 30 June 2022, the Liquidity Coverage Ratio amounted to 273 % (31 March 2022: 229 %).

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 2022). 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.

The LCR exceeded 200 % on the reporting dates during the disclosure period, 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 in the new Real Estate Finance business and its funding.

Liquidity management within pbb Group

D 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 2022, liquidity reserves amounted to € 5,837 million (on average), consisting of high-quality level 1 liquid assets. The liquidity buffer consists primarily of liquid cash reserves 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 institutions, 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 obtained funding. Liquidity outflows are composed of 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 2022. 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 future collateral calls. This assumed amount was € 460 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:**	**30.06.2022**	**31.03.2022**	**31.12.2021**	**30.09.2021**	**30.06.2022**	**31.03.2022**	**31.12.2021**	**30.09.2021**
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)	——	——	——	——	**5,837**	**5,961**	**5,808**	**5,778**
Cash - outflows									
2	Retail deposits and deposits from small business customers, of which:	752	741	729	729	171	167	157	153
3	Stable deposits	-	-	-	-	-	-	-	-
4	Less stable deposits	726	718	715	719	145	143	143	144
5	Unsecured wholesale funding	1,054	1,068	863	753	774	792	610	522
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	-	-	-	-	-	-	-	-
7	Non-operational deposits (all counterparties)	597	584	541	472	317	308	288	241
8	Unsecured debt	457	484	322	281	457	484	322	281
9	Secured wholesale funding	——	——	——	——	1	-	-	-
10	Additional requirements	460	453	457	455	460	453	457	455
11	Outflows related to derivative exposures and other collateral requirements	460	453	457	455	460	453	457	455
12	Outflows related to loss of funding on debt products	-	-	-	-	-	-	-	-
13	Credit and liquidity facilities	-	-	-	-	-	-	-	-
14	Other contractual funding obligations	36	41	33	35	18	24	16	18
15	Other contingent funding obligations	3,616	3,642	3,514	3,609	1,279	1,257	1,106	1,121
16	**Total cash outflows**	——	——	——	——	**2,703**	**2,693**	**2,346**	**2,269**
Cash - inflows									
17	Secured lending (e.g. reverse repos)	207	161	78	25	11	8	4	-
18	Inflows from fully performing exposures	353	417	431	494	221	253	262	293
19	Other cash inflows	60	62	104	121	60	62	104	121
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**	620	640	613	640	**292**	**323**	**370**	**414**
EU-20a	Fully exempt inflows	-	-	-	-	-	-	-	-
EU-20b	Inflows subject to 90% cap	-	-	-	-	-	-	-	-
EU-20c	Inflows subject to 75% cap	620	640	612	640	292	323	369	414
Total adjusted value									
EU-21	**Liquidity buffer**	——	——	——	——	**5,837**	**5,961**	**5,808**	**5,778**
22	**Total net cash outflows**	——	——	——	——	**2,411**	**2,368**	**1,978**	**1,855**
23	**Liquidity coverage ratio (%)**	——	——	——	——	**254**	**270**	**308**	**321**

[1] These values and figures are calculated for each of the four calendar quarters preceding the disclosure date, simply using the average 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) and 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 and public infrastructure 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 LCR of 100 %. The values determined for pbb Group were significantly above the required minimum ratio in the first half of 2022; the NSFR as at the disclosure date of 30 June 2022 amounts to 114 % (31 March 2022: 119 %).

Quantitative information on the Net Stable Funding Ratio

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 2022.

The fluctuations in the NSFR in the first half of the year 2022 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 2022)

		a	b	c	d	e
Quarter-end figures as of 30.06.2022		Unweighted value by residual maturity				Weighted value
All figures in € million, unless otherwise stated		No maturity	< 6 months	6 months to < 1yr	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	3,208	-	-	565	3,773
2	Own funds	3,208	-	-	565	3,773
3	Other capital instruments	———	-	-	-	-
4	Retail deposits	———	1,376	554	1,464	3,201
5	Stable deposits	———	-	-	-	-
6	Less stable deposits	———	1,376	554	1,464	3,201
7	Wholesale funding:	———	3,182	10,991	31,136	37,242
8	Operational deposits	———	-	-	-	-
9	Other wholesale funding	———	3,182	10,991	31,136	37,242
10	Interdependent liabilities	———	-	-	-	-
11	Other liabilities:	177	-	-	77	77
12	NSFR derivative liabilities	177	———	———	———	———
13	All other liabilities and capital instruments not included in the above categories	———	-	-	77	77
14	**Total available stable funding (ASF)**	———	———	———	———	**44,293**
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	———	———	———	———	3,217
EU-15a	Assets encumbered for more than 12m in cover pool	———	-	-	26,123	22,205
16	Deposits held at other financial institutions for operational purposes	———	-	-	-	-
17	Performing loans and securities:	———	2,714	3,387	9,671	11,525
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut	———	963	1,000	-	1,463
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions	———	67	95	325	379
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, thereof:	———	1,537	2,192	7,716	9,294
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	———	75	102	186	965
22	Performing residential mortgages, thereof:	———	125	69	1,209	-
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	———	70	34	1,084	-
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	———	23	31	421	390
25	Interdependent assets	———	-	-	-	-
26	Other assets:	-	2,098	-	158	796
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	———	1,537	-	-	77
31	All other assets not included in the above categories	———	562	-	158	719
32	Off-balance sheet items	———	-	-	3,424	1,144
33	**Total RSF**	———	———	———	———	**38,887**
34	**Net stable funding ratio (%)**	———	———	———	———	**114**

[1)] The regulatory own funds as of 30 June 2022, which were understated by € 17 million, and the capital ratios were corrected on 20 October 2022. The original publication of the Disclosure Report as of 30 June 2022 was accordingly replaced.

EU LIQ2: Net Stable Funding Ratio (at quarter-end as at 31 March 2022)

Quarter-end figures as of 31.03.2022		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
All figures in € million, unless otherwise stated		No maturity	< 6 months	6 months to < 1yr	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	3,187	-	-	579	3,765
2	Own funds	3,187	-	-	579	3,765
3	Other capital instruments	———	-	-	-	-
4	Retail deposits	———	1,383	508	1,380	3,081
5	Stable deposits	———	-	-	-	-
6	Less stable deposits	———	1,383	508	1,380	3,081
7	Wholesale funding:	———	3,154	3,941	39,139	41,641
8	Operational deposits	———	-	-	-	-
9	Other wholesale funding	———	3,154	3,941	39,139	41,641
10	Interdependent liabilities	———	-	-	-	-
11	Other liabilities:	80,870	-	-	114	114
12	NSFR derivative liabilities	80,870	———	———	———	———
13	All other liabilities and capital instruments not included in the above categories	———	-	-	114	114
14	**Total available stable funding (ASF)**	———	———	———	———	**48,602**
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	———	———	———	———	5,052
EU-15a	Assets encumbered for more than 12m in cover pool	———	-	-	25,960	22,066
16	Deposits held at other financial institutions for operational purposes	———	-	-	-	-
17	Performing loans and securities:	———	3,202	2,918	10,033	12,337
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut	———	1,043	-	-	1,043
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions	———	74	70	294	336
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, thereof:	———	1,291	2,553	7,189	8,997
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	———	76	82	202	937
22	Performing residential mortgages, thereof:	———	57	264	1,177	-
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	———	52	66	1,028	-
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	———	738	32	1,373	1,961
25	Interdependent assets	———	-	-	-	-
26	Other assets:	-	1,904	-	374	814
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	———	1,541	-	-	77
31	All other assets not included in the above categories	———	363	-	374	737
32	Off-balance sheet items	———	-	-	3,173	718
33	**Total RSF**	———	———	———	———	**40,986**
34	**Net stable funding ratio (%)**	———	———	———	———	**119**

Sustainability risks

This chapter presents information on environmental, social and governance (ESG) risks. The disclosure requirement pursuant to Article 449a of the CRR first applies as at 31 December 2022.

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 Guidelines on Climate-related and Environmental Risks, pbb Group defines ESG risk as the risk of adverse financial effects on the institution resulting from the 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 risk includes the components environmental risks, social risks and governance risks. For further information on this topic, please refer to the Disclosure Report as at 31 December 2021 (chapter "Sustainability risks", pages 165 et seqq.).

Green Bond and Green Loan Framework

To take sustainability aspects more into account 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; whilst the Bank's IT systems already capture these criteria for partial portfolios, in future they will do so for the entire REF loan portfolio. pbb is thus gaining an overview of the sustainability of its loan portfolio and the associated risks. 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 Group has established a Green Bond Framework, allowing it to raise funding via so-called green bonds. In January 2021, pbb successfully placed its first Green Bond on the market, and has since then placed further issues. By issuing green bonds, pbb Group enables investors to make targeted investments in sustainable capital market products.

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, whose requirements go even further than 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 score upwards, 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 into account three dimensions: 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.

Financing volumes

The volume of green loans which the Bank has been issuing since the fourth quarter of 2021 rose to around € 1 billion by the end of June 2022. pbb was also active on the green bond market, with another € 750 million issue, topped up with € 200 million in April 2022. With three green benchmark bonds placed since the beginning of 2021 and around € 2 billion in outstanding volume, pbb is among the most active issuers in this segment.

Carbon footprint

pbb has progressively expanded its carbon footprint reporting in recent years and launched initiatives with the objective of further reducing its carbon emissions and broadening reporting, with the carbon footprint of lending being one crucial element

ESG rating

In the first half of 2022, ESG rating agency MSCI raised pbb's ESG rating from A by one notch to AA. The overall score increased from 7.9 to 10 due to an improved assessment of the "Environment" and "Governance" factors. Thus, pbb now outperforms the sector average. Most importantly, the "Environmental" score improved significantly from 1.5 to 4.1. On the one hand, a more de-tailed portfolio review identified only a low exposure to environmentally harmful industries, while on the other hand, the improved practices to reduce environmental risk in financing transactions were highlighted.

Information regarding COVID-19 measures

This chapter provides information on the measures implemented by pbb Group in response to the COVID-19 crisis in line with the European Banking Authority's "Guidelines on reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis" (EBA/GL/2020/07).

These disclosure requirements introduced following the COVID-19 crisis were originally applicable until year-end 2021, but continue to apply. In a press release of 17 January 2022, EBA confirmed that exposures and the credit quality of loans that benefit from public support measures still need be monitored and disclosed until further notice.

General payment moratoria

To alleviate the effects of the COVID-19 pandemic, Germany and other countries agreed to impose varying forms of payment holidays in 2020, including statutory deferrals of certain loan instalments for clients in financial distress owing to the crisis. In Germany, the corresponding rules related exclusively to loan agreements concluded with consumers and microenterprises, and are therefore of no significance to pbb Group. The same applied for other countries' moratoria, if they were extended solely to consumer business, and for private moratoria initiated by the banking associations in which pbb is not involved.

As at the disclosure date of 30 June 2022, pbb Group continues to not use general payment moratoria pursuant to margin no. 10 of EBA/GL/2020/02 in conjunction with EBA/GL/2020/02, EBA/GL/2020/08 and EBA/GL/2020/15. This applies to both legislative and non-legislative moratoria. Therefore, the tables EU COVID-19/Template 1, i.e. "Information on loans and advances subject to legislative and non-legislative moratoria" and EU COVID-19/Template 2 "Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria" as set out in EBA/GL/2020/07, are not relevant for pbb Group.

In its existing business, pbb had instead actively sought economically viable solutions on an individual basis together with clients. In agreement with the clients, the contractual cash flows were adjusted on a small number of financings in this context. In most cases, contractual agreements for calculating financial covenants were suspended, or relief was provided, for a certain period of time; alternatively, current principal repayments were deferred when adjusting contractual cash flows.

Newly granted financings, secured by public guarantees

As at the disclosure date of 31 December 2021, the pbb Group's portfolio included financings in the amount of € 1 million granted by pbb to clients in response to the COVID-19 crisis and secured by public guarantees (guaranteed by Germany's public sector development bank Kreditanstalt für Wiederaufbau – KfW). These financings were fully repaid in the first half of 2022.

Therefore, a disclosure of the table EU COVID-19/Template 3 "Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis" as set out in EBA/GL/2020/07 is no longer relevant for pbb Group.

Outlook

Pillar 3 framework

pbb Group has applied the disclosure requirements pursuant to Part 8 of the CRR, which were amended along with CRR II, and the EU-wide uniform disclosure formats developed by the EBA in accordance with Article 434a of the CRR in accordance with the comprehensive Pillar 3 framework (Implementing Regulation (EU) 2021/637 and EBA/ITS/2020/04, amongst others) since the dis-closure date of 30 June 2021. These disclosures will be supplemented in future by additional details:

- information on environmental, social and governance (ESG) risks pursuant to Article 449a of the CRR in conjunction with EBS standard EBA/ITS/2022/01 is to be partially disclosed for the first time as at the disclosure date of 31 December 2022.
- 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.

The disclosure requirements in response to the COVID-19 crisis, which were initially limited until 31 December 2021, continue to apply beyond December 2021. In a press release of 17 January 2022, EBA confirmed that exposures and the credit quality of loans that benefit from public support measures still need to be monitored and disclosed until further notice.

Pillar 3 data hub

In accordance with its Annual Report 2021 published on 15 June 2022, EBA seeks to further enhance market discipline and pro-mote the use of Pillar 3 information by facilitating centralised access to Pillar 3 information (Pillar 3 data hub) for credit institutions in the European Economic Area (EAA). The Pillar 3 information published in the Pillar 3 data hub are 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 EAA 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

Confirmation of the Management Board

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

The Management Board of pbb 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, 6 September 2022

Deutsche Pfandbriefbank AG

The Management Board

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