Annual Report

2021

Deutsche Pfandbriefbank Group

OVERVIEW

Deutsche Pfandbriefbank Group (pbb Group)		2021	2020
Operating performance according to IFRS			
Profit before tax[1)]	in € million	242	151
Net income[1)]	in € million	228	121
Key ratios			
Cost-income ratio[1)]	in %	40.4	42.4
Return on equity before tax[1)]	in %	7.5	4.6
Return on equity after tax[1)]	in %	7.0	3.6
Earnings per share[1)]	in €	1.58	0.77
New business volume Real Estate Finance[2)]	in € billion	9.0	7.3
Balance sheet figures according to IFRS		**31.12.2021**	**31.12.2020**
Total assets	in € billion	58.4	58.9
Equity	in € billion	3.4	3.3
Financing volumes Real Estate Finance	in € billion	27.6	27.0
Key regulatory capital ratios[3)]		**31.12.2021**	**31.12.2018**
CET1 ratio	in %	17.1	16.1
Own funds ratio	in %	22.4	21.4
Leverage ratio	in %	6.0	6.0
Staff		**31.12.2021**	**31.12.2020**
Employees (on full-time equivalent basis)		784	782
Long-term issuer rating/outlook[4)5)]		**31.12.2021**	**31.12.2020**
Standard & Poor's		BBB+/Negative	A-/Negative
Moody's Pfandbrief rating[4)5)]		**31.12.2021**	**31.12.2020**
Public sector Pfandbriefe		Aa1	Aa1
Mortgage Pfandbriefe		Aa1	Aa1

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note "Consistency.
[2)] Including prolongations with maturities of more than one year.
[3)] Values as of 31 December 2021 after confirmation of the 2021 financial statements, less AT1-coupon and less proposed dividend (subject to approval by the Annual General Meeting). Values as of 31 December 2020 without allocation to retained earnings.
[4)] Please refer to the "Report on economic position" for a detailed description of the ratings.
[5)] The ratings of unsecured liabilities may diverge from the issuer ratings.

Information due to rounding

Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

Explanation of alternative performance measures

For further information regarding the definition, usefulness and calculation of alternative performance measures see "investors/financial-reports" at www.pfandbriefbank.com.

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Letter from the Management Board

Dear shareholders, dear business partners,
Ladies and Gentlemen,

The negative effect of the COVID-19 pandemic on the global economy continued during 2021, although it was less severe than the year before. Following the contraction in 2020, the economic output of industrialised nations is currently estimated to have grown by 5% again, though development varied widely across individual countries. In Germany, pbb's core market, gross domestic product grew by 2.7% but did not manage to regain pre-COVID-19 pandemic levels.

The real estate investment market also recovered, and investment volumes in Europe and the USA returned to pre-pandemic levels. However, various types of property continued to record materially different trends; since the outbreak of the pandemic, demand has strongly focused on first-class office properties with long-term, secure leases. Investors also centred their attention on logistics properties, residential properties, and retail properties serving local demand, while demand for real estate such as shopping centres and hotels was minimal. In this environment, new business originated by financing banks and non-banks rebounded compared to the previous year.

pbb benefited from a more favourable market environment as well: we increased new commercial real estate finance business considerably, from €7.3 billion to €9 billion, and at €242 million – 60% higher than the previous year – we achieved the second-best pre-tax profit in our history as a listed company. The drivers of this strong result alongside higher net interest income and net fee and commission income were in particular a sharp rise in early repayments. This was bolstered by lower burdens from risk provisioning, although we strengthened loss allowance in the form of a management overlay. The fair value measurement result recovered as well.

Our success will also benefit shareholders. After taxes and taking into account the coupon for Additional Tier 1 capital we issued, €212 million or €1.58 per share is attributable to ordinary shareholders. In line with its dividend policy, pbb intends to distribute 50% as a dividend and 25% as a special dividend to its shareholders; in other words, a total of €159 million or €1.18 per no-par value share entitled to dividends. The Management Board and the Supervisory Board will submit a corresponding proposal to the Annual General Meeting on 19 May 2022.

We not only achieved a good result in 2021: as in previous years, we also consistently developed pbb further. Firstly, we further aligned our business activities to ecological and social criteria, as well as to standards of good corporate governance. After laying the groundwork in 2020, pbb has been successfully issuing green bonds since early 2021. By year-end we had recorded an outstanding volume of €1 billion; following a further issue in January 2022, the figure is now €1.75 billion. Moreover, we have been extending green loans since autumn 2021; at the time the financial statements were prepared, the volume had already reached an impressive €685 million. Supporting the transition to more environmentally friendly buildings is a duty owed to society; at the same time, it offers pbb business opportunities.

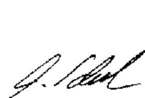
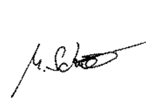
Secondly, in terms of pbb's development, we have also advanced digitalisation. Our Client Portal, the digital interface with our clients, launched on schedule at the end of the first quarter of 2021 and we have continuously expanded the application to include additional products and markets. The logical next step is digitalising the client and loan processes, and here we are making good progress.

For 2022 we have once again set our sights high. We intend to continue to grow organically in our core business by expanding our US activities and leveraging product innovations, as well as extend more green loans and consistently advance digitalisation. While we view 2022 as a year of investment, we want to sustainably strengthen our earnings base in the coming years.

However, the war in Ukraine and sanctions against Russia are causing uncertainty in general economic development, the extent of which is currently hard to estimate. From today's point of view, we believe that the immediate impact on our loan book and our operative business is very low, and more than manageable. Russia and Ukraine are not amongst pbb's target markets – as a result, we have no direct exposure to these countries. Despite the changed geopolitical landscape, we believe pbb's business potential remains good. With our focus on core real estate with stable cash flows, renowned tenants and low re-letting risks, we service investor demand for valuable assets in challenging times.

In these volatile times with many changes, some of which we ourselves are the driver of, we can rely on two constants: our clients, with whom we work as partners, and the pbb team with its unconditional drive to deliver top performance. We would like to once again thank all our clients for the trust they have shown in our Bank, and all our colleagues for their tremendous commitment.

Yours sincerely

Andreas Arndt	Thomas Köntgen	Andreas Schenk	Marcus Schulte
CEO and Chief Financial Officer	Deputy CEO Real Estate Finance and Public Investment Finance	Member of the Management Board, Chief Risk Officer	Member of the Management, Board, Treasurer

Report of the Supervisory Board

Dear shareholders,

As with the previous year, the 2021 financial year was also shaped by the COVID-19 pandemic and its global repercussions. Along with these overarching issues, regulatory requirements, digitalisation and ESG (environmental, social and governance) remained the key themes for banks, and thus also for pbb. Despite these immense challenges, pbb once again achieved strong growth in new business during the 2021 financial year, whilst maintaining high risk standards and solid gross margins. The Bank's overall business results were positive. In addition, pbb also expanded its leading market position in commercial real estate finance.

pbb achieved this by systematically exploiting its business and earnings potential. The Bank continued to focus on cost discipline during 2021 and forged ahead with its digitalisation initiatives. For instance, in early 2021, pbb sold a shareholding in its subsidiary CAPVERIANT GmbH to Caisse des Dépôts (CDC) as a strategic partner. In addition, the Bank further enhanced its digital Client Portal as the interface for our client communication as well as the starting point for the digitalisation of our loan process.

Moreover, the systematic and gradual extension of pbb's existing credit product range – for non-senior finance, for example – paved the way for the expansion of our US business. pbb also increasingly geared its banking activities towards the all-encompassing ESG complex, which also includes, apart from the implementation of an appropriate governance and project structure within pbb, the issuance of green bonds along with the establishment of green loans as a new product.

With a view to personnel stability and the sustainable development of pbb, the Supervisory Board last year reappointed the Management Board members Andreas Arndt and Marcus Schulte for a further term of two years and five years respectively, and amended their service contracts accordingly. This allowed the Bank to secure their long-standing expertise, which – in cooperation with the other two members of the Management Board – has made a key contribution to pbb's successful development over recent years. Furthermore, the Supervisory Board addressed the medium- and long-term expansion and succession planning of the Management Board.

Over the past year, the Supervisory Board, and more specifically its Executive and Nomination Committee, also discussed the long-term succession planning of the Supervisory Board at great length. In May 2021, the Annual General Meeting elected Susanne Klöß-Braekler and Hanns-Peter Storr to the Supervisory Board for the first time. Ms Klöß-Braekler and Mr Storr succeeded Dr Jutta Dönges, who resigned from her office at her own request with effect from 24 March 2021, and Joachim Plesser, who decided not to seek re-election. All remaining shareholder representatives on the Supervisory Board were re-elected. Heike Theißing and Georg Kordick were re-elected as employee representatives on the Supervisory Board, and Olaf Neumann was elected as a new employee representative to the Supervisory Board. At the end of the Annual General Meeting in May 2021, Dr Christian Gebauer-Rochholz retired from the Supervisory Board as an employee representative.

After her long-standing and successful work on the Supervisory Board, Ms Dagmar Kollmann resigned from her office at her own request with effect from 31 October 2021. Options for her replacement as well as candidates to be appointed as new Supervisory Board members were already examined in detail at an early stage. In addition to the mandatory statutory and regulatory requirements (first and foremost expertise, reliability, avoidance of conflicts of interest, and maximum number of mandates), all considerations are based on the competence profile for the Supervisory Board as well as on pbb's Guideline on Fostering Diversity. On this basis, the Su-

pervisory Board resolved at its extraordinary meeting at the end of January 2022 to apply for the court appointment of Gertraud Dirscherl to the Supervisory Board, which the Local Court (*Amtsgericht*) approved on 2 February 2022. Given her many years as an auditor and KPMG partner in the area of Corporate Finance, Ms Dirscherl meets all the requirements and is an excellent match for the Supervisory Board thanks to her expertise and experience. The court appointment has a term until the end of the 2022 Annual General Meeting. The Supervisory Board will propose that the Annual General Meeting extend Ms Dirscherl's mandate.

The Supervisory Board expressly thanks all of its members who retired from the Board during 2021 for their great commitment and contributions made to pbb's positive ongoing development.

The Supervisory Board continuously monitored the Management Board during the financial year 2021, as in the past, and provided it with regular advice on the management of the Company. As always, supporting ongoing business development, continuously developing the business strategy and monitoring the corresponding risks were key focuses for the supervisory and advisory activities of the Supervisory Board. As in previous years, 2021 saw the Supervisory Board devoting particular attention to issues concerning legal supervisory requirements and IT.

CORPORATE GOVERNANCE

The Supervisory Board continuously monitored the Management Board during the financial year 2021, as in the past, and provided it with regular advice on the management of the Company.

It assured itself in all cases that the management measures taken by the Management Board were lawful, appropriate, due and proper. The Management Board fulfilled its duties to provide information and informed the Supervisory Board in a regular, timely and comprehensive manner, both in writing and orally, about matters and measures relevant to the Company. This also included information on any deviations between target and actual figures or developments. The members of the Supervisory Board had sufficient opportunity, at all times, to critically assess the reports and proposed resolutions submitted by the Management Board, and to make their own suggestions during Supervisory Board committee meetings and in the plenary sessions. The Management Board also reported to the Chair of the Supervisory Board, as well as to the respective committee chairs, on all material developments between meetings.

In particular, the Supervisory Board held in-depth discussions on, and reviewed the plausibility of, all business transactions material to the Company, on the basis of written and oral reports provided by the Management Board.

The Supervisory Board examined the requisite independence of the external auditors of the financial statements, Deloitte GmbH Wirtschaftsprüfungsgesellschaft ("Deloitte"), instructed Deloitte with the audit following the resolution of the Annual General Meeting, and agreed on the auditors' fee.

In principle, conflicts of interest can arise for Supervisory Board members between their Supervisory Board work for the Company on the one hand, and their other activities on the other, for example due to their advisory role or directorship at a client, supplier, lender or other third party. The Supervisory Board's Rules of Procedure provide regulations for dealing with and mitigating such (imminent) conflicts of interest faced by pbb's Supervisory Board members or their related parties, in particular with regard to relationships with clients and/or relationships with other credit institutions. These measures include, for example, the disclosure of imminent conflicts of interest, the waiver of voting rights or non-participation in relevant discussions during meetings of the Supervisory Board/the committee concerned.

On 25 February 2022, the Supervisory Board concerned itself with the Declaration of Compliance with the German Corporate Governance Code for the financial year 2021

(https://www.pfandbriefbank.com/en/investors/mandatory-publications.html). Please also refer to the Group's separate Remuneration Report, which is published on the Company’s website. With respect to the requirements of the German Corporate Governance Code, in conjunction with section 111 (5) of the German Public Limited Companies Act (*Aktiengesetz* – "AktG") concerning the target and current quotas of the under-represented gender on the Supervisory Board and the Management Board, please refer to the table outlining the composition of the Supervisory Board and its committees, and to the comments in the Corporate Governance Statement and in the Non-financial Report.

MEETINGS OF THE SUPERVISORY BOARD

The members of the Supervisory Board in the financial year under review were:

Dr Günther Bräunig (Chair), Dagmar Kollmann (Deputy Chair) (until 31 October 2021), Hanns-Peter Storr (from 12 May 2021, and from 10 November 2021 as Deputy Chair), Dr Jutta Dönges (until 24 March 2021), Dr Thomas Duhnkrack, Dr Christian Gebauer-Rochholz (until 12 May 2021), Susanne Klöß-Braekler (from 12 May 2021), Georg Kordick, Olaf Neumann (from 12 May 2021), Joachim Plesser (until 12 May 2021), Oliver Puhl and Heike Theißing.

pbb's Supervisory Board held ten meetings during 2021 (including one constituting and four extraordinary meetings) plus a two-day strategy meeting.

All ordinary meetings addressed the current business situation of pbb Group, which was discussed in detail with the Management Board in each case. The Management Board informed the Supervisory Board, regularly and in a timely manner, about pbb's financial situation and performance. During the ordinary meetings, the Supervisory Board also received reports on: the risk position, risk management, new business, the liquidity situation and strategy, funding and share price developments, current regulatory issues and audits, as well as on significant events of material importance to the assessment of the Company's position, development and management. Furthermore, the Management Board continuously and comprehensively informed the Supervisory Board about IT topics as well as supervisory topics and audits during the year under review. In addition, the Supervisory Board, repeatedly and in-depth, discussed the project for the review of the internal risk models (IRBA models) as well as the repercussions of the COVID-19 situation at any given time.

At an extraordinary meeting on 14 January 2021, the Supervisory Board deliberated on strategic projects, discussing and adopting – against the background of the ECB recommendation to limit distributions – the dividend proposal for the 2020 financial year to be presented to the Annual General Meeting. Moreover, the Supervisory Board discussed the ECB's SREP Operational Letter, as well as an ECB memorandum for the identification and measurement of credit risk in the context of the COVID-19 pandemic, and resolved on its two response letters.

The ordinary meeting on 26 February 2021 dealt, in particular, with the target achievement at Bank level as well as with the variable remuneration for the members of the Management Board for the 2020 financial year and with the redetermination of their variable remuneration retained for the financial years 2016-2019 (including the penalty/malus review and backtesting). The extension of Marcus Schulte's appointment to the Management Board and his service contract as well as amendments to the contracts with members of the Management Board (maximum remuneration under ARUG II and addenda to clawback agreements), the Variable Remuneration Plan for 2021 and the Supervisory Board's succession planning, including the proposal to the Annual General Meeting for the election of Susanne Klöß-Braekler to the Supervisory Board, were further focus areas. In addition, the Supervisory Board addressed pbb's Recovery Plan in line with regulatory requirements and the report on the examination of efficiency, which concluded the evaluation of both the Supervisory and Management Board for 2020. Moreover, the annual Declaration of Com-

pliance, the Supervisory Board report and the Corporate Governance Statement were adopted, and further training topics as part of the regular professional development measures for the Supervisory Board for 2021 were determined. The Supervisory Board also attended to the preparations for the Annual General Meeting as well as the capital markets report, including the steps to be taken for a potential additional dividend payment during the fourth quarter 2021, with due regard to the expectations of the supervisory authority and the capital market.

In the accounts review meeting held on 12 March 2021, the consolidated financial statements for 2020 were approved and the annual financial statements for 2020 were adopted. In this context, the Supervisory Board also addressed the Non-financial Report. Moreover, the Annual General Meeting for 2021 was prepared and the relevant resolutions concerning the agenda, including the proposed resolutions submitted – in particular with regard to the appropriation of profit, the elections to the Supervisory Board and the appointment of the external auditors – were adopted. Along with the Supervisory Board's renewed discussion of its succession planning, the reporting on the current status of ongoing strategic projects was also a core theme at the meeting.

The meeting of 7 May 2021 discussed the reporting on pbb Group's first quarter of 2021. In addition, the Supervisory Board deliberated on the Remuneration Reports for 2020 as well as the Bank's ESG strategy (including Green Bond/Green Loan). Furthermore, the Supervisory Board prepared the Annual General Meeting and resolved on the re-appointment of Andreas Arndt as member and Chair of the Management Board for a further two-year term, i.e. until April 2024.

At its constituting meeting following the Annual General Meeting on 12 May 2021, the Supervisory Board once again elected Dr Günther Bräunig as its Chair and Dagmar Kollmann as Deputy Chair. Moreover, the Supervisory Board resolved on the composition of its committees and their chairs. It also resolved to continue the existing Supervisory Board committees and retain the relevant rules of procedure.

At a further extraordinary meeting on 2 June 2021, the Supervisory Board deliberated on strategic projects.

During its meeting on 6 August 2021, the Supervisory Board discussed pbb Group's interim report as at 30 June 2021, and the review of the six-month financial statements and of the Management Report by the external auditors. Furthermore, the Supervisory Board addressed the requirements and the next steps with regard to the distribution of an additional dividend for the 2020 financial year. The Supervisory Board also deliberated and resolved on the implementation of the German Financial Market Integrity Strengthening Act (*Finanzmarktintegritätsstärkungsgesetz* – "FISG") within the Bank, and the associated amendments to the rules of procedure of both the Supervisory Board and the Audit and Digitalisation Committee, as well as the amendments to the Suitability Policy and the Supervisory Board's competence profile. In addition, the Supervisory Board resolved on the introduction of new non-senior lending products (Loan on Loan and Senior Mezzanine Lending US) at pbb. Moreover, the Supervisory Board resolved on pension adjustments in 2021 for retired Management Board members, discussed the current status of the Bank-internal ESG project and approved pbb's ICT framework, which was established in accordance with EBA guidelines.

At an extraordinary meeting on 28 October 2021 following Ms Kollmann's retirement from office, the Supervisory Board deliberated on the succession to the chair of the Audit and Digitalisation Committee and elected Dr Bräunig (with effect as of 1 November 2021) as the committee's chair, with the meeting being in agreement regarding the filling of said vacancy at short notice as well as the chair of the Audit and Digitalisation Committee.

On the basis of the debates held over the course of its annual strategy meeting on 28/29 October 2021, on 10 November 2021 the Supervisory Board initially discussed pbb Group's results for the third quarter 2021 and then adopted the multi-year plan and the business strategy presented by the Management Board for the financial years 2022 to 2024 as well as the IT and risk strategy for 2022. Likewise, the Supervisory Board prepared the examination of efficiency for both the Management and Supervisory Boards and discussed the annual report of the Executive and Nomination Committee to the Supervisory Board concerning current corporate governance issues. In addition, the Supervisory Board determined the parameters for the risk-adjusted performance measurement at Bank level as well as the targets for the Management Board for the 2022 financial year and approved the identification of risk takers as well as the assessment of the appropriateness of the remuneration system. In this context, the Supervisory Board also resolved on a moderate raise in the basic remuneration paid to the members of the Management Board. Furthermore, the Supervisory Board discussed the status of strategic projects (including ESG), elected Hanns-Peter Storr as Deputy Chair of pbb's Supervisory Board and appointed Dr Thomas Duhnkrack as a member to the Executive and Nomination Committee.

At a further extraordinary meeting on 9 December 2021, the Management Board provided information on current strategic projects.

In line with recommendation D.7 of the German Corporate Governance Code, the Supervisory Board also meets, or addresses certain items on its meeting agendas, without the involvement of the Management Board. In 2021, it did so at the meetings on 26 February, 7 May and 10 November.

SUPERVISORY BOARD COMMITTEES

During the 2021 financial year, the Supervisory Board established the following committees: the Executive and Nomination Committee, the Audit and Digitalisation Committee, the Risk Management and Liquidity Strategy Committee, and the Remuneration Committee.

The Executive and Nomination Committee held eight meetings (including three extraordinary meetings); it consisted of Dr Günther Bräunig (Chair), Dr Thomas Duhnkrack (as of 10 November 2021), Susanne Klöß-Braekler (as of 12 May 2021), Dagmar Kollmann (until 31 October 2021) and Joachim Plesser (until 12 May 2021).

The Committee addressed strategic and current regulatory issues as well as matters concerning the Management Board, for which it prepared corresponding proposals for the plenary meeting. These primarily involved the achievement of the Management Board members' targets as well as the determination of their variable remuneration for 2020 (including penalty/malus review). The Committee also prepared the 2021 examination of efficiency for the Management Board as well as the Supervisory Board (including its committees); it informed the Supervisory Board about corporate governance issues and discussed the Corporate Governance Statement, including the Declaration of Compliance with the German Corporate Governance Code. Moreover, the Committee discussed the reappointment of Andreas Arndt and Marcus Schulte and, repeatedly, the (long-term) succession planning of the Supervisory Board and the replacement of Dagmar Kollmann after her retirement from the Supervisory Board. In addition, the Committee deliberated on the further professional development topics for the Supervisory Board for 2021, the measures for the implementation of the FISG, the assessment of the appropriateness of the remuneration system for the 2022 financial year as well as the amendments to the Management Board contracts and its basic remuneration. Furthermore, the Committee addressed governance topics arising from the SREP requirements for 2021 and, on an ongoing basis, the current status of the Bank's strategic initiatives and projects.

The Audit and Digitalisation Committee held a total of five meetings and consisted of Dagmar Kollmann (Chair) (until 31 October 2021), Dr Günther Bräunig (from 1 November 2021 as

Chair), Dr Jutta Dönges (until 24 March 2021), Dr Thomas Duhnkrack and Hanns-Peter Storr (from 12 May 2021).

During its meetings, the Committee reviewed and discussed the Annual Financial Statements and Consolidated Financial Statements for 2020, the interim reports (or interim statements) for 2021, the reports by Internal Audit and external auditors on internal and external audit findings, as well as the audit report under section 89 (1) of the German Securities Trading Act (*Wertpapierhandelsgesetz* – "WpHG"). In addition, the Committee discussed the effects of current regulatory issues with the Management Board and was informed about the progress of ongoing audits. The Committee also addressed the mandate of the external auditor Deloitte and its audit plan for the 2021 financial year. Furthermore, the Committee satisfied itself as to the independence of the external auditor and recommended that the Supervisory Board propose to the Annual General Meeting to elect Deloitte as the external auditor for the 2021 financial year. The Committee also addressed the dividend proposal for the 2020 financial year as well as the dividend policy for 2021 against the backdrop of the requirements and expectations of both the regulator and the capital market. In addition, the Committee addressed current regulatory topics and supervisory audits, including the project status for the review of internal rating models (IRBA models). Moreover, the Committee resolved on updating its rules of procedure in light of the FISG implementation. Furthermore, regular reports were received on the internal control system and the monitoring of key controls implemented, current litigation, compliance issues, data protection and IT security, special accounting issues, the results of external audits, as well as the audit plan established by Internal Audit and its implementation. In view of the COVID-19 pandemic, the Committee repeatedly discussed the pandemic's impact on the Bank's balance sheet and income statement. In addition, the status of the Bank's digitalisation measures and initiatives was discussed at two meetings together with the Digital Advisory Board.

The Risk Management and Liquidity Strategy Committee convened for four ordinary meetings. It also discussed credit exposures requiring Supervisory Board approval, usually during monthly conference calls. It consisted of Joachim Plesser (Chair) (until 12 May 2021), Hanns-Peter Storr (Chair) (from 12 May 2021), Dr Günther Bräunig (from 1 November 2021), Dr Jutta Dönges (until 24 March 2021), Dagmar Kollmann (until 31 October 2021) and Oliver Puhl.

At its regular meetings, the Committee supported the Supervisory Board's monitoring of the risk and liquidity management; it reviewed the Management Board's risk reporting and was involved in the credit approval process to the extent laid down in the Rules of Procedure. The Committee also regularly discussed new business developments as well as the liquidity and funding status and syndication business. During 2021, the Committee also discussed reports on sub-portfolios (including development financings); it dealt with foreclosures, specific allowances, the reporting of own funds in accordance with the German Solvency Regulation, country limits and the asset/liability management. Moreover, the Committee debated pbb's recovery plan in line with regulatory requirements, the internal rating models (IRBA models) (at length), the results of the supervisory credit audit, the updates for the business and risk strategy as well as the trends on the real estate markets to be expected over the medium term. Furthermore, the Committee discussed specific special topics, such as the current COVID-19 implications, the ESG risk planning for 2021, the Model Risk Monitoring Report and the ECB stress test 2021. It also resolved on the implementation of the Non-Senior Lendings strategic initiative.

In addition, the Committee addressed individual credit exposures on numerous occasions, usually in the form of monthly conference calls. These related to new business, regular resubmissions and approvals for change applications, required to be submitted under the Committee's Rules of Procedure.

The Remuneration Committee held four meetings; it consisted of Dr Günther Bräunig (Chair), Susanne Klöß-Braekler (from 12 May 2021), Dagmar Kollmann (until 31 October 2021), Joachim Plesser (until 12 May 2021) and Heike Theißing.

The Committee discussed the Remuneration Reports, the variable remuneration for the 2020 financial year, the target agreements for and achievements of the Management Board members as well as the Variable Remuneration Plan 2021 for the Management Board. Furthermore, the Committee prepared the approval of the determination of risk-taker functions and the determination of parameters for the risk-adjusted performance measurement at bank level, as well as the target agreements with Management Board members, for the Supervisory Board's attention. Other key focus areas of the meetings were the Bank's remuneration system, including the assessment of its appropriateness, as well as regulatory changes and the extension of the Remuneration Officer's mandate.

Supervisory Board of pbb in 2021

			Committee function and meeting attendence			
Name place of residence initial appointment	Principal activity	Supervisory Board function and meeting attendence	Executive and Nomination Committee	Audit Committee	Risk Management and Liquidity Strategy Committee	Remuneration Committee
Dr. Günther Bräunig Frankfurt/Main, Germany 14.8.2009	CEO of KfW (until 31.10.2021)	Chairman 10 of 10	Chairman 8 of 8	Member Chairman (since 1.11.2021) 5 of 5	Member (since 1.11.2021) 1 of 1	Chairman 4 of 4
Dagmar Kollmann Vienna, Austria 14.8.2009 - 31.10.2021	Entrepreneur	Deputy Chairman 7 of 8	Member 6 of 6	Chairman 4 of 4	Member 3 of 3	Member 3 of 3
Hanns-Peter Storr Frankfurt/Main, Germany 12.5.2021	Banker	Member; Deputy Chairman (since 10.11.2021) 6 of 6		Member 2 of 2	Chairman (since 12.5.2021) 2 of 2	
Dr. Jutta Dönges Frankfurt/Main, Germany 21.6.2018 - 24.3.2021	Member of the Executive Board Bundesrepublik Deutschland – Finanzagentur GmbH	Member 3 of 3		Member 2 of 2	Member 1 of 1	
Dr. Thomas Duhnkrack Kronberg/Taunus, Germany 21.7.2015	Entrepreneur	Member 9 of 10	Member (since 10.11.2021) 1 of 1	Member 5 of 5		
Dr. Christian Gebauer-Rochholz Hochheim, Germany (Employee representative) 20.11.2012 - 12.05.2021	Bank employee	Member 4 of 4				
Susanne Kloß-Braekler Munich, Germany 12. Mai 2021	Entrepreneur	Member 6 of 6	Member 4 of 4			Member 1 of 1
Georg Kordick Poing, Germany (Employee representative) 22.2.1990	Bank employee	Member 10 of 10				
Olaf Neumann Munich, Germany 12. Mai 2021	Entrepreneur	Member 6 of 6				
Joachim Plesser Ratingen, Germany 26.4.2014 - 12.5.2021	Consultant	Member 4 of 4	Member 4 of 4		Chairman (until 12.5.2021) 2 of 2	Member 3 of 3
Oliver Puhl Frankfurt/Main, Germany 13.5.2016	Entrepreneur	Member 9 of 10			Member 4 of 4	
Heike Theißing Munich, Germany (Employee representative) 7.7.2011	Bank employee	Member 10 of 10				Member 4 of 4

TRAINING AND CONTINUOUS PROFESSIONAL DEVELOPMENT

The members of the Supervisory Board assumed responsibility for undertaking any training or professional development measures necessary to fulfil their duties. The Company supported them to the extent required in this regard. Regular training is also provided ahead of the regular Supervisory Board meetings in the form of presentations by external speakers. During 2021, these training sessions included the following topics: regulatory priorities for 2021, ESG/sustainability and their bank-internal implications, supervisory recovery and resolution planning as well as digitalisation/cloud. This regular training programme for the entire Supervisory Board will be continued.

ANNUAL FINANCIAL STATEMENTS

Deloitte, the auditors of the annual and consolidated financial statements elected by the Annual General Meeting, audited the annual and consolidated financial statements of pbb as at 31 December 2021, including the consolidated management report, and issued them with unqualified audit opinions. The Bank has published the mandatory Non-financial Statement in a separate Non-financial Report. As part of its review obligation, the Supervisory Board availed itself of the option of a content-related external audit of the Non-financial Statement. In this context, Deloitte subjected the Non-financial Report to a limited assurance review in accordance with ISAE 3000.

Deloitte has submitted a declaration of its independence to the Supervisory Board. The financial statements documents and audit reports were submitted to all Supervisory Board members in good time. The Audit and Digitalisation Committee addressed the financial statements documents at its meeting on 17 March 2022. The annual financial statements and consolidated financial statements, the combined management report as well as audit reports were discussed in detail with the Management Board and representatives of the external auditors. Following its own review, the Supervisory Board did not raise any objections to the audit results submitted by the external auditors. In the accounts review meeting held on 18 March 2022, the Supervisory Board approved the consolidated financial statements prepared by the Management Board, and the annual financial statements were adopted. During the same meeting, the Supervisory Board also discussed the Management Board's proposal for the appropriation of profits with the Management Board. Following its examination, the Supervisory Board has endorsed the proposal for the appropriation of profit submitted by the Management Board.

The Supervisory Board would like to thank the Management Board and all of pbb's employees for their exceptional personal commitment and successful work during the 2021 financial year, also in view of the constant and ever more rapidly evolving changes in the competitive environment.

For the Supervisory Board

Dr Günther Bräunig
Chairman

Combined Management Report

Fundamental Information about the Group

The management report of Deutsche Pfandbriefbank AG (pbb) and the group management report are combined, in accordance with the German Accounting Standard (GAS) 20. Information provided in this consolidated management report relates – if not explicitly stated otherwise – to both pbb Group as a whole, and to pbb as an individual company. The report also includes information referring solely to the parent entity pbb (with explanations on the basis of the German Commercial Code (HGB)). The annual report of pbb in accordance with HGB and the consolidated management report are published simultaneously in the German Federal Gazette (Bundesanzeiger).

GROUP STRUCTURE

pbb Group consists primarily of the parent entity pbb. In addition, pbb has subsidiaries and investments, which are presented in the Note "pbb shareholdings".

In addition to the Bank's headquarters in Munich/Garching, pbb Group has offices at four locations across Germany (Eschborn, Düsseldorf, Hamburg and Berlin). Outside Germany, it maintains a presence at five locations: London, Madrid, Paris, Stockholm, and New York City. The Bank operates most of its international financing activities from these locations.

BUSINESS MODEL AND STRATEGY

The strategic business segments of pbb Group are Real Estate Finance (REF) and, complementing this, Public Investment Finance (PIF); the focus is on business eligible for inclusion in Pfandbrief cover. The geographic focus is on Europe and the USA. Its significant core markets are Germany, France, the United Kingdom, the Nordic countries and selected Central and Eastern European countries, as well as Spain, and the Benelux countries. In the US, pbb concentrates mainly on the metropolitan areas of New York, Washington D.C., Boston, Chicago, San Francisco, Seattle and Los Angeles.

Lending is pbb's core business: it plays an important role in this area, supplying credit to the real estate sector and supporting the public sector on selective project financings for the provision and improvement of public infrastructure. pbb has started to incorporate ESG in its business model, the multi-year planning and portfolio management. The "Green Loan" programme was stepped up and has become part of the strategic business model. This means that green loans will be expanded in the new business, based on a strategic analysis of opportunities and risks of the existing business as a whole. pbb focuses in particular on primary client business and syndications. Besides traditional financing solutions tailored to clients' needs, pbb offers its clients derivatives for hedging risks associated with lending. pbb does not maintain a trading book for securities or derivatives portfolios held to realise short-term gains.

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

In addition, pbb acts as underwriter, initially being the sole provider of financing and then selling parts of such loans to interested partners within the scope of syndications.

Regarding digital products and business models, pbb's subsidiary CAPVERIANT GmbH ("CAPVERIANT") operates a platform that brings together public-sector borrowers and institutional investors. The platform was launched in Germany in 2018 and then rolled out to the French market in 2019. The French government-owned financial institution Caisse des Dépôts acquired a stake of around 28.57% in CAPVERIANT with economic effect as of 1 January 2021. The cooperation is expected to promote the growth and market penetration of CAPVERIANT in France.

Strategic portfolios

In real estate finance, pbb's range of services is targeted primarily at professional real estate investors (both national and international) such as real estate companies, institutional investors, real estate funds and – particularly in Germany – also SMEs and clients with a regional focus on Germany. pbb targets more complex transactions with medium-sized to larger financing volumes. Financed objects mainly involve office buildings, properties for residential use and retail and logistics properties. Other property types are financed as portfolio additions. The regional focus is on the core markets eligible for inclusion in Pfandbrief cover in Europe and in certain US metropolitan areas. Here, pbb offers both local and cross-border financing expertise. A majority of the loans granted are investment financings, i.e. loans for the acquisition or follow-up financing of existing properties generating cash flows. Development financings (including residential real estate developers in Germany) are of complementary significance.

In Public Investment Finance, pbb finances projects for the provision and improvement of public infrastructure. Clients in this segment include regional or provincial governments, municipalities, urban development companies, publicly-owned hospitals, and investment or real estate holding companies. Public private partnerships and other structured transactions are being pursued in addition. The regional focus is on France. This segment is complemented by bond purchases, including (in particular) for the purposes of managing the cover assets pool and the Group's liquidity.

Value Portfolio

The Value Portfolio (VP) consists almost entirely of existing financings to the public sector which are not linked to specific projects (budget financing). pbb does not originate any new business in this area. The portfolio is primarily refinanced at matched maturities. It generates interest income, and matures in accordance with the underlying fixed terms. If and when economically feasible, pbb also uses portfolio or individual asset sales to bring about a more rapid reduction.

Consolidation & Adjustment (C&A)

C&A reconciles the segment results with the consolidated group result. Besides internal reconciliation and consolidation items, certain expenses and income that are outside the responsibility of the operating segments are reported here. These include assets for the asset/liability management and the liquidity portfolio.

Funding

Loans are largely funded using matching maturities, and primarily via the Pfandbrief market, supplemented with unsecured funding. Issues are regularly placed on the international capital markets in benchmark format, and via private placements. pbb structures private placements as bearer or registered securities in accordance with investors' requirements, or in the form of fixed-rate deposits – meaning that term and interest structure can be negotiated on an individual basis. In line with the lending business, issues are predominantly conducted in euros; pbb prefers to refinance any non-euro lending (especially in the US, the UK and Sweden) directly in the respective currency. As a consequence costs for foreign exchange swaps are avoided and the need for excess Pfandbrief cover to be funded on an unsecured basis is reduced.

pbb issues Mortgage Pfandbriefe and Public Sector Pfandbriefe, and is one of the largest issuers of Pfandbriefe (measured by outstanding volume). The Pfandbrief market is highly liquid, with a broad investor base (source: Association of German Pfandbrief Banks).

The main vehicles used for unsecured funding are promissory notes, bearer bonds, and fixed-rate deposits classified as "Senior Preferred".

The main investors in debt instruments are banks, investment funds and insurance companies, but also central banks and sovereign wealth funds. In this segment, pbb Group's particular strategic focus is on further developing its funding franchise, with the objective of further diversifying and expanding its investor base. Therefore at the beginning of 2021 the first „Green Bond" was issued to offer investment opportunities for investors with sustainability requirements.

In addition, the Bank is active in the deposit-taking business with private investors in Germany. Via its online platform (www.pbbdirekt.com) as well as through third-party providers, pbb offers overnight and fixed-term deposits denominated in euros and US dollars.

Regarding measures provided by the European Central Bank (ECB), in 2020 and 2021 pbb Group participated in the ECB's targeted longer term refinancing operations (TLTRO III) due to the attractive conditions offered.

COMPETITIVE POSITION

In its core markets, pbb has a local presence and expertise across the entire process chain, with real estate experts, property law specialists and financing experts, up to the management of loan exposures. pbb also actively deploys this local expertise to support clients with international transactions, with key decisions always being taken by the responsible units at Group level.

STRATEGIC FOCUS

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

The Management Board of pbb as has committed itself to further strengthen pbb Group's profitability in the financial years 2022 to 2024. Strategically, the focus concerning income lies particularly on the aforementioned business activities in the REF core segment. The expansion of the product range is expected to further increase profitability, whilst strictly adhering to cost targets.

Its risk-conservative approach remains the cornerstone of pbb's core business as well as the new strategic initiatives, based on pbb's expertise in its markets. Ultimately, the common objective of these measures is to make a positive contribution to profitability.

With regard to the products in the core business, pbb has expanded the product range to include a non-senior component within the scope of these competencies, in order to facilitate selective and limited risk-taking.

pbb has launched a comprehensive ESG programme to address new regulatory requirements, and to capture market opportunities and risks arising in the context of ESG. This programme will cover all ESG topics that are relevant to pbb – strategy, environment, social and governance (ESG), as well as ESG risk, data management, communication and reporting – in projects and working groups. With specific regard to sustainability, which forms an essential element of the programme (including green finance), environmental sustainability issues will be reviewed in relation to the business activities (lending with green loans and refinancing with green bonds in particular) and operations.

The need to transform the real economy and the real estate industry will create business potential and challenges arising from the substantial investment needs our clients have. In future, pbb Group aims to act not only primarily as a capital provider, but also as a transformation partner for its clients and the commercial real estate industry. With this in mind, pbb Group has set itself the goal of understanding both the opportunities and challenges facing its clients in the context of sustainability and the associated pressure to transform in line with its strategic client orientation, and of supporting its clients as an active partner in the transformation process, also making use of its extensive network. This includes providing support for financing the acquisition of green properties and green developments, but in particular transformation projects, such as refurbishment work and therefore improving the energy efficiency of existing buildings. The green loan and the transition loan were established for this as an important basis and have been available to clients as a new product since 2021.

pbb Group aims to take specific measures to back up its stated ambitions. The initial focus is on meeting all common client needs in the context of sustainability and sustainable financial solutions. Where pbb Group has a chance to set itself apart from its peers by offering selected additional products and services, it takes a proactive approach to examining their introduction. To achieve this, pbb intends to expand its internal expertise in the real estate arena, as well as property scoring and potential analysis, and complementing it by entering into targeted use partnerships.

Economic aspects (such as securing long-term income streams) and ecological considerations (such as the type of heating, building materials etc.) all play an important role for the financing of commercial building projects or public infrastructure projects. Taking ESG aspects into account not only makes a positive contribution to the overarching sustainability targets, but also serves to help avoid the business model's ESG/sustainability risks. As a result, pbb Group will consistently increase the proportion of sustainable financing and define corresponding targets.

To meet ppb Group's responsibility as a transformation partner and the expectations of its stakeholders, pbb Group concerns itself intensively with the topic of sustainability, also within the company itself. As part of a materiality analysis conducted regularly, the most relevant sustainability topics are identified and corresponding targets and measures derived from it. Besides industry-specific aspects, such as the role of pbb Group as a transformation partner and the long-term transformation of the business portfolio and business operations, pbb Group pays special attention to strong corporate governance, social issues and its employees.

As a globally active company, pbb Group accepts its unconditional responsibility as a global company to respect, uphold human rights and to prevent these from being violated, during the course of its own business activities, but also along its entire supply and value chain and amongst all its stakeholders. The Human Rights Policy and the Code of Conduct determine a corresponding framework.

pbb Group also intends to further advance its digital transformation. The approach chosen for this comprises three main thrusts; focusing on further development of client interfaces, enhancing process efficiency, and new products and business models.

INTERNAL MANAGEMENT SYSTEM

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

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

The internal management system has remained unchanged compared to the previous year.
The following financial key performance indicators have been defined:

- One key profitability indicator is the return on equity after tax. It is calculated by dividing IFRS net income/loss by the average IFRS equity available in the financial year excluding taccumulated (expiring) other comprehensive income (OCI) from cash flow hedge accounting, financial assets at fair value through OCI as well as additional equity instruments (AT1 capital) and non-controlling interests. Profit before tax is a further financial key performance indicator. The aim is to increase it both by generating higher revenues and through strict cost discipline. Cost discipline and efficiency are monitored using the cost-income ratio, i.e. the ratio of general and administrative expenses and net income from write-downs and write-ups of non-financial assets to operating income.

- The notional amount of the funding in the Real Estate Finance (REF) segment is a significant factor influencing the future earning power and has therefore been redefined as an additional financial key performance indicator. The financing volume can be controlled, above all, by the volume of new business (including prolongations with maturities of more than one year), which also represent a financial key performance indicator. A present value approach is used for managing and calculating new business.
- pbb Group's capital adequacy process (ICAAP) is based on two approaches concerning risk-bearing capacity: the normative and the economic perspective. Whilst the normative perspective is aimed at the fulfilment of all capital-related legal requirements, supervisory demands and internal objectives, on an ongoing basis, the economic perspective covers all material risks which might threaten the institution's economic viability. Both perspectives are designed to supplement each other, safeguarding pbb Group's ability to survive. The prerequisites for evidencing risk-bearing capacity in the normative perspective are the ongoing compliance with minimum regulatory requirements over a medium-term horizon, plus evidence of adequate internal capital to cover material risks exceeding such minimum requirements. In the economic perspective, risk-bearing capacity is evidenced by sufficient internal capital being available to cover potential present-value losses. Details concerning the methodology used for analysing risk-bearing capacity, and the results obtained, are provided in the Risk and Opportunity Report.
- The CET1 ratio, a key management parameter, is determined on a regular basis; it is calculated by dividing Common Equity Tier 1 (CET1) by risk-weighted assets (RWAs). The Advanced Internal Rating Based Approach (Advanced IRBA) is used to determine regulatory capital requirements for the far predominantly portion of the real estate portfolio and the credit risk standardised approach (CRSTA) for the remaining portfolio.

Non-financial key performance indicators within the meaning of GAS 20.105 are currently not explicitly managed. pbb Group is focusing intensely on environmental, social, and governance (ESG) aspects and for this reason launched a cross-divisional ESG programme in 2021 in line with its holistic ESG strategy. This programme bundles and further develops all ESG activities organisationally and operationally, and is expected to define non-financial performance indicators in the future. Alongside the sustainable finance focal point – which has already seen the implementation of green bonds and green loans – and the further development of the Bank's business model, additional ESG indicators as well as the green asset ratios and the taxonomy alignment ratio for the banking book (in line with current regulatory developments) are at the heart of the programme. Due to the high complexity involved in calculating those indicators – which has also led to a delay of the first-time disclosure obligation of the green asset ratios until 2024 – and the great ambiguities in the interpretation of the statutory requirements, no non-financial performance indicators were defined or determined in 2021.

NON-FINANCIAL STATEMENT

Companies must assume responsibility for their actions in the environment in which they operate. The key principle of pbb Group's corporate responsibility philosophy is that of sustainability. This means long-term, responsible actions that take the consequences for all the company's stakeholders and for the environment into account.

pbb Group is convinced that sustainable and responsible business practices are an essential requirement for securing the future of the Company and increasing its value.

pbb Group goes into those topics and aspects of sustainability which it has identified as being important for the Company in more detail in the Combined Separate Non-Financial Report (see chapter "Non-Financial Report") which is not part of the Combined Management Report. This has been put together in accordance with the requirements of the CSR Directive Implementation Act and, in addition, will be published via the German Federal Gazette (Bundesanzeiger). The Non-Financial Report has not been audited by the auditors. However, it has been subject to an audit of limited assurance according to ISAE 3000.

Report on Economic Position

MACROECONOMIC ENVIRONMENT

The global economy grew significantly in 2021. This was down to the economic recovery following a 3.1% slump in global GDP in 2020 due to the COVID-19 pandemic. As a consequence of the recovery, the International Monetary Fund (IMF) projects a 5.9% increase in global economic activity for 2021 (source: IMF).

However, considerable risks remain (source: IMF): these include – more specifically – the continued pandemic progression, as underlined by the recent global spread of the Omicron variant of coronavirus. This has prompted many countries to impose renewed contact restrictions in order to contain the rapid spread of the variant, and to prevent the healthcare system from being overwhelmed. For this reason, economic growth is likely to have slowed down, in the winter months at least (source: ECB).

According to current estimates, economic output in industrialised nations grew by 5.0% in 2021, after falling 4.5% in 2020 (source: IMF). At the level of individual countries, economic performance varied, depending on the course of the pandemic, fiscal and monetary policy, the continued existence of local containment measures, and importance of the tourism and services sector for the respective economies. While the US, the UK – supported by a loose monetary and fiscal policy – and France, turned in a comparatively pleasing performance, growth in Germany and some Eurozone-countries and in Japan remained below average. The US economy grew by 5.6%, while GDP in the euro area increased by 5.2% (source: IMF).

Germany is expected to see its economic output rise by only 2.7% in 2021, following a decline of 4.6% in 2020 (source: IMF). However, economic output has not yet returned to pre-crisis levels (source: Federal Statistical Office). In addition to the infection situation and the associated protection measures, increasing supply and material bottlenecks also influenced cyclical development in 2021 (source: Federal Statistical Office).

The French economy already returned to its pre-crisis level in the third quarter of 2021. For the full year, gross domestic product grew by 6.7%, following a slump of 8.0% in 2020 (sources: Banque de France, IMF). Private household consumption was central to recovery here, as the containment measures that were particularly affecting the service sector were eased. Investment recovered even faster than consumption, exceeding its pre-crisis level as early as mid-2021 (source: European Commission).

Spain’s economy is expected to grow by 4.9% in 2021, having slumped by 10.8% the year before (source: IMF). It is important to note here that Spain's large tourism sector is a major factor in the continuing gap in economic activity. Italy's economy is expected to grow by 6.2%, having contracted by 8.9% in the previous year (source: IMF).

Output in the UK economy is expected to increase by 7.2% in 2021 (source: IMF), falling short of last year's pre-crisis level (source: OECD), with consumption the key growth driver. Business investment increased, but remains constrained by uncertainty. Increased costs at the borders following the UK's exit from the EU single market are impacting imports and exports (source: OECD).

pbb's core markets in Northern and Eastern Europe were not as severely affected by the economic downturn in 2020 compared to the euro area, with GDP still seeing a strong increase in 2021. In Sweden, growth was 4.0%, in Poland 5.1% (source: IMF).

Unemployment rates declined in most countries, due to the economic recovery. In December 2021, the unemployment rate in the euro area was 7.0%, more than one percentage point lower than twelve months earlier (source: Eurostat). In Germany, the number of unemployed fell from 4.0% to 3.2% during this period (source: Eurostat). In France, unemployment fell from 7.8% in December 2020 to 7.4% a year later, while in Spain the rate dropped from 16.3% to 13.0% during the same period (source: Eurostat). Unemployment also fell in Northern Europe, as was the case in Sweden which recorded a fall from 8.9% in December 2020 to 8.0% a year later (source: Eurostat). Similarly, the United Kingdom saw a decrease from 5.2% in November 2020 to 4.1% in November 2021 (source: Office for National Statistics). The United States reported a slightly steeper decline from 6.7% in December 2020 to 3.9% in December 2021 (source: Eurostat).

The extraordinary support provided by fiscal and monetary policy enabled the economic recovery to be sustained. In this context, the €750 billion EU recovery fund, the EU's €100 billion SURE programme aimed at supporting local short-time work schemes, and the ECB's pandemic emergency purchase programme (PEPP) are particularly noteworthy. The latter was increased to €1.85 trillion in December 2020 and prolonged until March 2022 (source:ECB). The US government responded with its latest stimulus package, the US$1.8 trillion "American Rescue Plan", in March 2021 (source: IMF). The Federal Reserve (Fed) kept its key interest rate constant last year, but started to reduce its asset purchases ("tapering") in November. The bond-buying programme is thus expected to end in March 2022 (source: Fed). The Bank of England (BoE) kept its asset purchase programme constant at GBP 895 billion over the course of the year. In December 2021 and February 2022, it raised its benchmark rate by 15 basis points and 25 basis points, respectively, to 0.5% (source: BoE).

In addition to the ongoing pandemic situation, interest rates have been influenced by the global rise in inflation and the monetary policy response to it. At the beginning of 2021, interest rates therefore rose across the board as markets assumed that the recovery from the pandemic would herald a period of sustained growth and inflation. In the autumn, shorter-term interest rates rose in particular, as central banks signalled that they would respond to high inflation by scaling back expansionary monetary policy. Due to the somewhat more conservative outlook of the Bank of England and the Fed, interest rates on 10-year government bonds for the UK and the US rose more than those in the euro area for the most part, as the ECB acted more cautiously (source: Bloomberg).

On the currency markets, pound sterling gained 6.3% against the euro over the course of the year. The US dollar also gained 7.4% against the European single currency; this was partly down to the more restrictive monetary policy in the US and the UK compared to the euro area (source: Bloomberg).

SECTOR-SPECIFIC ENVIRONMENT

Overall Situation in the Banking Sector

Credit risks for banks have decreased over the past year alongside more favourable conditions in the non-financial corporate sector, whilst banks' average income situation has picked up due to the economic recovery (source: ECB). Even though non-performing loans (NPLs) have fallen to pre-global financial crisis levels, concerns over asset quality may re-emerge as government support measures are gradually withdrawn. Furthermore, banks in the euro area reported a significant increase in return on equity in 2021, from 1.5% at the end of 2020 to 7.2% in the third quarter of 2021 (source: ECB). This change was mainly due to lower risk provisioning, reflecting lower downside risks to economic growth following vaccine approval and the gradual scaling

back of containment measures. In addition, income flows from investment banking increased (source: ECB).

However, many banks are still concerned about the operating environment. According to the ECB, pre-pandemic structural challenges such as low cost efficiency, limited revenue diversification, overcapacity and compressed margins continue to persist in a low interest rate environment, even though pandemic-related challenges have subsided (source: ECB).

Commercial Real Estate Finance

Demand for the real estate asset class continued to recover in the year under review. Investment volumes in Europe were around 20% above the previous year's level and thus already above the pre-pandemic 5-year average. Meanwhile, the year-on-year recovery in the US was much more pronounced, up 88%, and turnover generated with commercial real estate was also back above pre-crisis levels in 2021 (source: RealCapitalAnalytics). However, the various real estate types continued to record material differences: since the outbreak of the pandemic, demand has strongly focused on first-class office properties with long-term, secure rental contracts. Investors tended to centre their attention on logistics properties, residential properties and retail properties with a local supply function, while demand for pandemic-affected property types such as shopping centres and hotels virtually came to a standstill. As a result, returns for the respective types of property were adjusted. Even so, these adjustments were much less pronounced than in the years before the financial crisis. (source: CBRE, RealCapitalAnalytics)

Overall, the year under review was defined by a recovery in new business concluded by financing banks and non-banks compared with the previous year. This was evident, in particular for locations, segments and product types for which there is good demand. (source: IREBS)

Public Investment Finance

As the European Commission states in its Autumn Economic Forecast, most EU member states are investing more than before the pandemic, in part attributable to the prospects afforded by the EU's economic recovery plan (NextGenerationEU). Thus, according to the Commission, the ratio of public-sector investment relative to gross domestic product in the euro area rose from 3.0% in 2020 to an expected 3.1% in 2021. Therefore, public-sector investments are edging closer to the levels seen before the financial crisis, when the ratio in the period between 2003 and 2007 was at an average of 3.2%. In addition, the suspension of EU fiscal rules in 2021 has slightly enlarged the room for manoeuvre for fiscal stimulus measures at a national level. Nevertheless, at local body and regional levels, budgetary constraints are still very much an issue.

The ratio of public-sector investments in the focus market of France also rose, from 3.7% of gross domestic product in 2020 to an estimated 4.0% in 2021, thus definitely approaching the average of the pre-financial crisis period (source: European Commission).

Value Portfolio

The non-strategic Value Portfolio (VP) segment almost exclusively comprises public budget financing exposures. In 2021, the credit spreads of countries on the European periphery settled just below the previous year's level following a short-term widening of spreads in the second quarter of 2021. (source: Bloomberg)

Funding Markets

Development on the funding markets in 2021 was again largely determined by the COVID 19 pandemic and the expansive monetary policy conducted by the central banks. The environment for new issues proved to be extremely positive despite temporarily increased volatility on the markets. The favourable ECB measures, especially the TLTRO III refinancing programme, again pushed issuance activity well below the level of comparable pre-pandemic years. Also last year, a large number of issuers issued covered bonds for deposit with the ECB instead of placing them in the market. Temporary turbulence against the backdrop of emerging tapering discussions and increasing fears of inflation, which intensified towards the end of the year, failed to have a lasting impact on the capital markets. Lower issuance volumes combined with longer maturities and ample liquidity kept spreads stable at a low level. Since the summer of 2021, interest rates in the euro area have been on an upward trajectory. The return to high-yield issuance shifted demand towards shorter maturities. (sources: ECB, Bloomberg).

COURSE OF BUSINESS

At the beginning of 2021, pbb Group forecasted a pre-tax profit above the previous year's level, before it specified this outlook to a range of €180 million to €220 million on 27 July 2021, due to a good first half of the year under review. Ultimately, at €242 million, reported pre-tax profit exceeded this range.

Driven in particular by net interest income and net income from realisations, which exceeded expectations. The favourable development of those two items had a positive impact on operating income – and consequently, on the cost/income ratio, too. Hence, the 40.4% cost-income ratio developed much better than the forecast of a slight year-on-year increase. Since profit after taxes also exceeded expectations, return on equity after taxes at 7.0% was better than the initial forecast (increase compared to previous year's figure) and in line with the adjusted guidance communicated on 27 July 2021 (marked increase compared to previous year's figure).

Thanks to the strong fourth quarter of 2021, new business volume in Real Estate Finance (including extensions beyond one year) of €9.0 billion was higher than the range forecasted at the beginning of the year (€7.0 billion to €8.0 billion). As a result, the commercial real estate financing volume slightly increased to €27.6 billion compared to year-end 2020 (€27.0 billion), despite high repayments.

Forecasts concerning pbb's risk-bearing capacity at the beginning of 2021 were met during the course of the year. From a normative perspective, all regulatory minimum ratios were exceeded as at 31 December 2021; available financial resources (after deducting the minimum levels required for regulatory purposes) also covered all further material risks as at the reporting date. From an economic perspective, the capital available to cover the risks also exceeded economic capital requirements as at 31 December 2021.

As at 31 December 2021, the CET1 ratio amounted to 17.1% and, as expected, was significantly above the required SREP ratio.

DEVELOPMENT IN EARNINGS

At €242 million, profit before tax was 60% above the previous year's level (€151 million) in 2021. In detail, the items in the income statement developed as follows:

Deutsche Pfandbriefbank Group (pbb Group)

pbb Group		2021	2020[1]
Operating performance			
Operating income	in € million	591	526
Net interest income	in € million	494	476
Net fee and commission income	in € million	8	6
Net income from financial instruments at fair value through profit or loss (Net income from fair value measurement)[2]	in € million	10	-8
Net income from realisations	in € million	81	26
Net income from hedge accounting	in € million	-	4
Net other operating income	in € million	-2	22
Net income from allowances on financial assets (Net income from risk provisioning)[2]	in € million	-81	-126
General and administrative expenses	in € million	-219	-204
Expenses from bank levies and similar dues	in € million	-29	-26
Net income from write-downs and write-ups of non-financial assets	in € million	-20	-19
Profit before tax	**in € million**	**242**	**151**
Income tax	in € million	-14	-30
Net income	**in € million**	**228**	**121**
Key ratios			
Earnings per share (basic and diluted)[3]	in €	1.58	0.77
Cost-income ratio	in %	40.4	42.4
Return on equity before tex	in %	7.5	4.6
Return on equity after tax	in %	7.0	3.6

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note "Consistency.
[2] Solely the condensed and parenthesised line item descriptions are used subsequently.
[3] For calculation see note "Earnings per share".

Net interest income of €494 million was higher than the previous year's figure of €476 million, with a material positive effect incurred during the special interest rate period as a result of interest rate benefits from participation in the TLTRO III programme accrued over the term. As at the reporting date, pbb's total volume of liabilities under the TLTRO III programme was a nominal amount of €8.4 billion. As eligible net lending increased by 31 December 2021 in comparison to the benchmark, pbb will receive an interest rate premium of 50 basis points between 24 June 2021 and 23 June 2022. In accordance with IAS 20, this interest rate benefit is accrued over the term. Excluding TLTRO III effects, net interest income would remain at the previous year's level, pbb Group continued to benefit from higher income from interest rate floors in client business. The higher average portfolio of disbursed (and hence interest-bearing) REF financings also favoured net interest income (2021: €27.2 billion; 2020: €26.9 billion). Net interest income was burdened, however, by investing maturing own funds and financial assets in the liquidity portfolio at lower interest rates.

Net fee and commission income from non-accruable fees to be recognised directly through profit or loss amounted to €8 million (2020: €6 million).

Net income from fair value measurement was positive, at €10 million (2020: €-8 million). The rise was due to an interest rate and credit-induced increase in the fair values of financial assets recognised at fair value through profit or loss, among other things. It was also burdened to a greater extent last year by pull-to-par effects.

The high market liquidity led to a recovery in transaction volumes in commercial real estate in some property types following the pandemic-related slump of the previous year. As a result, early repayments of commercial real estate financings increased, leading to higher early termination fees and therefore higher net income from realisations of €81 million (2020: €26 million). Roughly half of the income was attributable to three repayments of financings for residential and office real estate in good locations in Germany and Austria.

As hedges were largely effective, net income from hedge accounting in line with IAS 39 was balanced (2020: €4 million). The previous year's results included income from a compensation payment received as a consequence of the conversion of reference interest rates to the euro short-term rate (€STR).

In particular, currency translation effects resulted in slightly negative net other operating income of €-2 million (2020: €22 million). This item also comprised minor net reversals of provisions recognised outside of the lending business, which were significantly lower than the previous year. Looking at provisions, no individual transaction was of material significance.

Net income from risk provisioning amounted to €-81 million (2020: €-126 million). For financial instruments without indications for impaired credit quality (stage 1 and stage 2), there was an addition to loss allowance of €35 million (2020: €70 million). The positive macroeconomic expectations led to a reversal of the model-based impairments and a reclassification of the financial assets from stage 2 to stage 1 impairments. However, since the underlying assumptions and modelling do not cover all the relevant risk factors in the current situation that is subject to particularly high uncertainty, the Management Board created a management overlay of €-54 million. Furthermore, changes in accounting estimates impacted on stage 1 and stage 2 risk provisioning, as described in the Note "Judgements and estimations". For financial instruments with indications for impaired credit quality (stage 3), addition to loss allowance amounted to €47 million (2020: €57 million). The additions related to a small number of financings, mainly for shopping centres in the UK (€35 million). Income from recoveries on loans and advances previously written off amounted to €1 million (2020: €1 million).

Although the overall economy in 2021 partially recovered from the significant slump triggered by the COVID-19 pandemic of 2020, uncertainty about future developments remains high. This is due to the uncertain further development of the COVID-19 pandemic. The reasons for this uncertainty include, among other things, new waves of infections due to virus mutations and the insufficient vaccination coverage of the population. Further waves of the pandemic may exert additional pressure on the overall economy.

In line with current publications – including those of the ECB, other central banks and economic research institutes – pbb Group in general expects the economy to continue to recover in 2022, which will bring about a reduction in the unemployment rate. In the context of measuring risk provisioning, pbb takes into account, amongst other things, the change in the unemployment rate as an indicator for forecasting economic developments. The expectation of a macroeconomic recovery and of a reduction in the unemployment rate results in a reversal of impairments for stage 1 and 2 financial assets (in line with the methodology). In this context, the models used for determining stage 1 and stage 2 are very sensitive to the currently expected recovery of the overall economy and would lead to significant reversals of impairments.

In spite of the pandemic and the temporary macroeconomic slump, there have not yet been any major loan defaults or insolvencies, as had been assumed. This is primarily due to the massive government liquidity and other assistance measures. It is unclear how the number of defaults and insolvencies will develop once the support measures expire and in case of a longer-lasting pandemic involving additional waves and ensuing countermeasures.

The Management Board assumes that defaults will occur with a time lag in some cases as a result of the existing state support measures. This is not likely to affect pbb Group's entire portfolio, but rather certain sub-portfolios, and in particular hotels and parts of the retail sector as well as properties in weaker locations and regions. Therefore, the Management Board decided to address these economic consequences by increasing the risk provisioning for these specific sub-portfolios in the form of a management overlay.

This management overlay also takes into account all other financial assets previously included in stage 2 impairments. The reason for this is that these financing transactions are subject to a significantly increased default risk since initial recognition and therefore are subject to an increased necessity to defer payments or prolong lending terms. This currently higher probability of deferrals and prolongations after the expiry of government support measures and due to negative developments with regard to the pandemic is not adequately reflected in the model-based allowances.

In the context of the management overlay, loss allowances are recorded in the amount of the lifetime expected credit loss of all financial assets of the defined sub-portfolios. For this purpose, financial assets with a gross carrying amount of €3,066 million were transferred from stage 1 impairments to stage 2 impairments, although they would not have fulfilled the stage 2 requirements according to the model. Taking into account the financial assets outside of the defined sub-portfolios which were reclassified from stage 2 to stage 1 in line with normal procedure, due to the generally more positive macroeconomic expectations, the gross carrying amount of stage 2 financings increased by €701 million as at 31 December 2021 compared to the previous year.

The time lag with respect to the occurrence of defaults and insolvencies since the low point of the recession in mid-2020, such as the change in the unemployment rate, was taken into account within the scope of the management overlay for all financial assets from the defined sub-portfolios and for all remaining financial assets of stage 2 impairments. As a result of said management overlay, stage 1 and stage 2 impairments increased by €54 million. As this is a temporary adjustment of expected credit losses to adequately reflect the current risk situation of customers, it will take some time before a full picture of the impact of the COVID-19 pandemic and subsequent measures at the level of the individual customer emerges.

In the previous year, as a result of the impact of the COVID-19 pandemic, net income from risk provisioning amounted to €-126 million, comprising €-70 million from stage 1 and stage 2 financial instruments, €-57 million from stage 3 financial instruments and income from recovery payments on previously written-off loans and advances of €1 million. pbb Group did not recognise a management overlay in the previous year.

General and administrative expenses of €219 million were slightly above the previous year's figure of €204 million. Personnel expenses (€132 million; 2020: €122 million) were burdened by provisions for termination benefits from the termination of employment relationships. Moreover, personnel expenses increased due to higher average staff numbers, for example in the IT and digitalisation areas. Lower staff fluctuation also had an effect here. Other administrative expenses (€87 million; 2020: €82 million) increased mainly due to costs associated with strategic projects and digitalisation projects. One particularly important project was the successful launch of the Client Portal, digitalising the interface between pbb and its clients.

Expenses from bank levies and similar dues (€29 million; 2020: €26 million) mainly comprised expenses for the bank levy of €27 million (2020: €23 million), taking into account pledged collateral amounting to 15%. The year-on-year increase in expenses for the bank levy resulted, among other things, from a significant increase in the fund's target volume at EU level. Furthermore, this item comprised expenses of €2 million (2020: €1 million) for the German deposit guarantee scheme.

Net income from write-downs and write-ups of non-financial assets of €-20 million included scheduled depreciations of tangible assets and amortisation of intangible assets and was at the previous year's level (2020: €-19 million).

Income taxes (€-14 million; 2020: €-30 million) were attributable to current taxes (€-38 million; 2020: €-34 million) and to deferred taxes (€24 million; 2020: €4 million). The increase in profit before taxes from €151 million to €242 million led to a rise in the current tax expense for the 2021 financial year to €46 million (2020: €40 million). It was offset by income from taxes for previous years in the amount of €8 million (2020: €6 million). These resulted on the one hand from tax rebates arising from a retrospective change to the legal position of the tax authorities and from the reversal of provisions for tax audit risks of subsidiaries on the other. Deferred tax income of €24 million was mainly as a result of greater recoverability of the deferred tax assets arising from the positive development pf the pbb Group that is expected in the forecast period.

Operating Segments

Segment reporting is based on management reporting results. More information on this can be found in the note on “Notes to Segment Reporting by Operating Segment”.

REAL ESTATE FINANCE (REF)

The REF business segment comprises financing for professional real estate investors. The volume of new business (including extensions by more than one year) totalled €9.0 billion (2020: €7.3 billion). As forecast at the start of 2021, the REF segment made the largest contribution by far to the overall result.

Real Estate Finance		2021	2020[1]
Operating performance			
Operating income	in € million	511	442
Net interest income	in € million	417	396
Net fee and commission income	in € million	8	6
Net income from fair value measurement	in € million	6	-6
Net income from realisations	in € million	81	24
Net income from hedge accounting	in € million	-	3
Net other operating income	in € million	-1	19
Net income from risk provisioning	in € million	-79	-129
General and administrative expenses	in € million	-189	-175
Expenses from bank levies and similar dues	in € million	-18	-16
Net income from write-downs and write-ups of non-financial assets	in € million	-17	-16
Profit before tax	**in € million**	**208**	**106**
Key ratios			
Cost-income ratio	in %	40.3	43.2
Balance-sheet-related measures		**31.12.2021**	**31.12.2020**
Financing volumes	in € billion	27.6	27.0
Risk-weighted assets[2]	in € billion	15.1	16.0
Equity[3]	in € billion	2.0	1.9

[1] Including weighted credit risk positions and capital charges for market risk positions and operational risk, using a scaling factor of 12.5. Numbers were adjusted due to IAS 8.42. Details are disclosed in note “Consistency”.

[2] Excluding accumulated other comprehensive income (OCI) from cash flow hedge accounting, financial assets at fair value through OCI, additional equity instruments (AT1 capital) and non-controlling interest.

Interest rate benefits from participation in the TLTRO III programme and the slightly higher average financing volume of €27.2 billion (2020: €26.9 billion) had a positive effect on net interest income. Higher early repayments due to strong market liquidity and the consequent increase in early termination fees in some sub-markets led to a significant rise in net income from realisations. Net income from risk provisioning resulted from additions for financings with indications for a deterioration of credit rating (stage 3) of €47 million, as well as from net additions for financings without indicators for a deterioration of credit quality (stages 1 and 2). General and administrative expenses were in line with pbb Group’s development.

PUBLIC INVESTMENT FINANCE (PIF)

The PIF business segment comprises financings extended primarily for the provision of public infrastructure. In view of increasingly apparent public-sector reticence regarding (privately financed) infrastructure investments, pbb does not aim at further business growth in this sector. Profit before tax was €15 million (2020: €16 million) and was therefore in line with expectations.

Public Investment Finance		2021	2020
Operating performance			
Operating income	in € million	40	41
Net interest income	in € million	37	38
Net fee and commission income	in € million	-	-
Net income from fair value measurement	in € million	1	-1
Net income from realisations	in € million	2	1
Net income from hedge accounting	in € million	-	-
Net other operating income	in € million	-	3
Net income from risk provisioning	in € million	-	-1
General and administrative expenses	in € million	-19	-19
Expenses from bank levies and similar dues	in € million	-4	-3
Net income from write-downs and write-ups of non-financial assets	in € million	-2	-2
Profit before tax	**in € million**	**15**	**16**
Key ratios			
Cost-income ratio	in %	52.5	51.2
Balance-sheet-related measures		**31.12.2021**	**31.12.2020**
Financing volumes	in € billion	5.2	5.8
Risk-weighted assets[1]	in € billion	0.7	0.8
Equity[2]	in € billion	0.2	0.2

[1] Including weighted credit risk positions and capital charges for market risk positions and operational risk, using a scaling factor of 12.5.
[2] Excluding accumulated other comprehensive income (OCI) from cash flow hedge accounting, financial assets at fair value through OCI and additional equity instruments (AT1 capital).

Net interest income declined in line with the lower average financing volume (€5.5 billion; 2020: €6.0 billion) and due to the lower income from investing own funds. Net income from risk provisioning was balanced. The portfolio did not contain any transactions with indications for impaired credit rating that required loss allowances to be recognised. Similarly, there was no significant need for adjustment for transactions at impairment stages 1 and 2 during the 2021 financial year. Administrative expenses, which mainly resulted from allocated overhead costs, remained constant at €19 million compared to the same period of the previous year. General and administrative expenses include expenses of the subsidiary CAPVERIANT GmbH, which operates a digital platform for public-sector borrowers and institutional investors.

VALUE PORTFOLIO (VP)

The Value Portfolio (VP) operating segment includes pbb Group's non-strategic portfolios and activities, and is being reduced in line with pbb's strategy. Profit before tax amounted to €17 million (2020: €25 million) and was therefore in line with expectations.

Value Portfolio		2021	2020
Operating performance			
Operating income	in € million	38	39
Net interest income	in € million	38	38
Net fee and commission income	in € million	-	-
Net income from fair value measurement	in € million	3	-1
Net income from realisations	in € million	-2	1
Net income from hedge accounting	in € million	-	1
Net other operating income	in € million	-1	-
Net income from risk provisioning	in € million	-2	4
General and administrative expenses	in € million	-11	-10
Expenses from bank levies and similar dues	in € million	-7	-7
Net income from write-downs and write-ups of non-financial assets	in € million	-1	-1
Profit before tax	**in € million**	**17**	**25**
Key ratios			
Cost-income ratio	in %	31.6	28.2
Balance-sheet-related measures		**31.12.2021**	**31.12.2020**
Financing volumes	in € billion	10.9	11.4
Risk-weighted assets[1]	in € billion	0.3	0.4
Equity[2]	in € billion	0.5	0.5

[1] Including weighted credit risk positions and capital charges for market risk positions and operational risk, using a scaling factor of 12.5.

[2] Excluding accumulated other comprehensive income (OCI) from cash flow hedge accounting, financial assets at fair value through OCI and additional equity instruments (AT1 capital).

Although the average financing volume declined in line with the Group’s strategy to €11.2 billion (2020: €11.8 billion), net interest income was at the previous year's level, whereby the segment benefited from higher income from floors. Net interest income was in turn burdened by lower income from investing own funds. Fair value measurement was slightly positive due to credit-induced increases in fair values of financial instruments and other items for individual securities of public-sector issuers reported at fair value through profit or loss, while the previous year’s period was negatively impacted by the widening of credit spreads for non-derivative financing. Net income from risk provisioning was down in the period under review compared to the previous year, as model-based impairments for stage 1 and 2 financial assets were required.

CONSOLIDATION & ADJUSTMENTS (C&A)

C&A reconciles the segment results with the consolidated result. Besides consolidation adjustments, this includes certain income and expense items outside the operating segments' responsibility.

Consolidation & Adjustments		2021	2020
Operating performance			
Operating income	in € million	2	4
Net interest income	in € million	2	4
Net fee and commission income	in € million	-	-
Net income from fair value measurement	in € million	-	-
Net income from realisations	in € million	-	-
Net income from hedge accounting	in € million	-	-
Net other operating income	in € million	-	-
Net income from risk provisioning	in € million	-	-
General and administrative expenses	in € million	-	-
Expenses from bank levies and similar dues	in € million	-	-
Net income from write-downs and write-ups of non-financial assets	in € million	-	-
Net income from restructuring	in € million	-	-
Profit before tax	**in € million**	**2**	**4**
Balance-sheet-related measures		**31.12.2021**	**31.12.2020**
Risk-weighted assets[1]	in € billion	0.7	0.5
Equity[2]	in € billion	0.4	0.4

[1] Including weighted credit risk positions and capital charges for market risk positions and operational risk, using a scaling factor of 12.5.
[2] Excluding accumulated other comprehensive income (OCI) from cash flow hedge accounting, financial assets at fair value through OCI and additional equity instruments (AT1 capital).

Net interest income was the only income item and arose from the investment of equity allocated to C&A.

DEVELOPMENT IN ASSETS

Assets

in € million	31.12.2021	31.12.2020[1)]
Cash reserve	6,607	5,376
Financial assets at fair value through profit or loss	1,180	1,368
Positive fair values of stand-alone derivatives	540	737
Debt securities	132	134
Loans and advances to customers	505	494
Other financial assets at fair value through profit or loss	3	3
Financial assets at fair value through other comprehensive income	1,258	1,529
Debt securities	943	1,384
Loans and advances to customers	315	145
Financial assets at amortised cost after credit loss allowances	48,087	48,669
Financial assets at amortised cost before credit loss allowances	48,429	48,913
Debt securities	6,893	7,481
Loans and advances to other banks	2,646	1,874
Loans and advances to customers	38,710	39,358
Claims from finance lease agreements	180	200
Credit loss allowances on financial assets at amortised cost	-342	-244
Positive fair values of hedge accounting derivatives	1,009	1,651
Valuation adjustment from porfolio hedge accounting (assets)	5	27
Tangible assets	32	38
Intangible assets	42	40
Other assets	50	47
Current income tax assets	3	19
Deferred income tax assets	129	95
Total assets	**58,402**	**58,859**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

General Development in Assets

Total assets remained largely constant during the reporting period. Due to participation in the eighth tranche of TLTRO III and the issuance of mortgage Pfandbriefe, the cash reserve increased. Financial assets measured at fair value through other comprehensive income declined on the back of maturing debt securities. Financial assets measured at amortised cost were marginally lower overall. Due to maturities and lower micro-hedge accounting adjustments as a result of higher interest rates, especially for long-term maturities, the volume of debt securities decreased. In contrast, loans and advances to other banks increased, in particular due to reverse repo transactions entered into, while loans and advances to customers declined due to lower micro-hedge accounting adjustments. The nominal volume of loans and advances to customers remained virtually stable, as expiring public investment financings were offset by a higher volume of commercial real estate financing. The increase in interest rate levels also led to a decrease in the market values of hedging derivatives and derivatives in financial assets measured at fair value through profit or loss.

Investments

Additions to intangible assets amounted to €15 million during the year under review (2020: €13 million). Services rendered by third parties were used for internally developed software. These investments covered all segments of pbb Group.

DEVELOPMENT IN FINANCIAL POSITION

Liabilities and equity

in € million	31.12.2021	31.12.2020[1)]
Financial liabilities at fair value through profit or loss	559	596
Negative fair values of stand-alone derivatives	559	596
Financial liabilities measured at amortised cost	52,656	52,570
Liabilities to other banks	10,633	9,844
Liabilities to customers	20,100	22,583
Bearer bonds	21,268	19,457
Subordinated liabilities	655	686
Negative fair values of hedge accounting derivatives	1,372	1,920
Valuation adjustment from porfolio hedge accounting (liabilities)	70	137
Provisions	231	246
Other liabilities	55	62
Current income tax liabilities	34	34
Liabilities	**54,977**	**55,565**
Equity attributable to the shareholders of pbb	3,124	2,996
Subscribed capital	380	380
Additional paid-in capital	1,637	1,637
Retained earnings	1,202	1,067
Accumulated other comprehensive income	-95	-88
from pension commitments	-111	-137
from cash flow hedge accounting	-28	-22
from financial assets at fair value trough other comprehensive income	44	71
Additional equity instruments (AT1)	298	298
Non-controlling interest in equity	3	-
Equity	**3,425**	**3,294**
Total equity and liabilities	**58,402**	**58,859**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note "Consistency.

Liabilities

Total liabilities slightly decreased to €55.0 billion (31 December 2020: €55.6 billion). At €52.7 billion, the largest item – financial liabilities measured at amortised cost – almost reached the previous year's figure of €52.6 billion. The increase in bearer bonds related to the issuance and the rise in liabilities to banks due to the participation in TLTRO III were offset by a lower volume of registered Pfandbriefe (liabilities to customers). In line with developments on the assets side, the rise in interest rate levels led to a decline in the market values of hedging derivatives.

Equity

The changes in equity are presented in the "Equity" note.

The Management Board and Supervisory Board will propose to the Annual General Meeting on 19 May 2022 to distribute a dividend of €1,18 per share entitled to dividends.

Key Regulatory Capital Ratios

At the balance sheet date, the CET1 ratio amounted to 17.1% (31 December 2020: 16.1%), the own funds ratio to 22.4% (31 December 2020: 21.4%) and the leverage ratio to 6.0% (31 December 2020: 6.0%) (after confirmation of the 2021 financial statements less AT1 coupon and less proposed dividend – subject to approval by the Annual General Meeting). Please refer to the Risk and Opportunity Report ("Internal Capital Adequacy Assessment Process (ICAAP)" section) for further information and calculation methodology on the key regulatory capital ratios.

Liquidity

Principles and Objectives of Liquidity and Financial Management
The primary objective of pbb Group's liquidity and financial management is to secure and manage the liquidity of pbb and its subsidiaries in such a way that their financing and funding capabilities are assured at all times. Central liquidity management is carried out by raising and investing liquidity on the money and capital markets and on the interbank money market as well as central banks.

Liquidity management within pbb Group is performed centrally by pbb's Treasury division. The sales units are refinanced internally on a one-to-one basis when they enter into new business. This means that risks are bundled and centrally managed.

Asset/liability management for pbb Group is performed by the Group Asset and Liability Committee (ALCO). The maturity structure can be found in the note on "Remaining terms of certain financial assets and liabilities."

Liquidity Ratio
As at 31 December 2021 the liquidity coverage ratio (LCR) was 227% (31 December 2020: 279%) and the net stable funding ratio (NSFR) was at 118%.

Funding
During the financial year 2021, pbb Group raised new long-term funding in the amount of €5.8 billion (2020: €5.0 billion). In contrast repurchases and terminations amounted to €0.6 billion (2020: €0.7 billion). The total amount of funding comprises both Pfandbrief issues and unsecured liabilities, issued both in the form of benchmark bonds and private placements. At €3.9 billion (2020: €3.2 billion), Pfandbriefe accounted for just under two-thirds of the total volume, of which €0.7 billion was issued to pledge as collateral for participation in the TLTRO III. Unsecured funding accounted for €1.9 billion (2020: €1.8 billion), with almost all of the volume being issued as Senior Preferred bonds. Most transactions were denominated in euro, and were placed as fixed-rate bonds. Unhedged interest rate exposures are usually hedged by swapping fixed against floating interest rates. To minimise foreign currency risk between assets and liabilities, bonds in the equivalent of €2.1 billion were also issued in USD, GBP and SEK (in comparison to €5.1 billion long-term financing placed in the market). Foreign currency transactions were converted into euro at the exchange rate valid at the time of the issue.

In its meeting on 10 December 2020, the ECB Governing Council decided to make available three additional tranches of the Targeted Longer Term Refinancing Operations (TLTRO) to banks in the euro area. As part of the rollover of its existing TLTRO III transactions, pbb Group participated in this programme in June 2021 resulting in an increase in the nominal volume amount of €8.4 billion. In this context, in June 2021, pbb Group also issued Pfandbriefe totalling €0.7 billion to be pledged as collateral with the ECB. The variable interest rate on the TLTRO III, subject to reaching a defined level of net lending by 31 December 2021, equals the average interest rate on the deposit facility during the entire term. As at 31 December 2021, ppb Group reached the level of net lending as defined by the ECB. According to the terms of the allocated TLTRO III tranche, pbb has consequently received an interest rate premium of 50 basis points on the nominal volume for the special interest rate period from 24 June 2021 to 23 June 2022, which will be recognised in net interest income pro rata temporis. The TLTRO III tranche was reported under liabilities to banks as at 31 December 2021.

Ratings

In the reporting year, pbb's mandated ratings were subject to the following changes:

As part of a review of various banking systems, S&P downgraded Germany's Industry Risk Score on 24 June 2021. The Industry Risk Score is an element of S&P's BICRA (Banking Industry Country Risk Assessment) framework, which is an element of Anchor Ratings for banks.

This resulted in rating changes within the German banking sector, also affecting the ratings assigned to pbb. Inter alia, pbb's long-term Issuer Rating and the ratings of its debt and hybrid instruments were downgraded by one notch each, respectively. For example, pbb's Issuer Rating and Senior Preferred Debt Rating are now at "BBB+" and the Senior Non-preferred Debt Rating is at "BB+". pbb's short-term Issuer Rating remained unchanged at "A-2". The negative outlook, which mainly relates to uncertainties around the future application of ALAC (Additional Loss Absorbing Capacity), remained unaffected by this rating action.

Senior unsecured ratings and ratings for Pfandbriefe of Deutsche Pfandbriefbank AG (pbb)[1)]

	31.12.2021		31.12.2020	
	Standard & Poor's	Moody's	Standard & Poor's	Moody's
Long-term Issuer Rating/Outlook	BBB+/negativ	-	A-/negativ	-
Short-term Issuer Rating	A-2	-	A-2	-
Long-term "Preferred" Senior Unsecured Debt Rating[2)]	BBB+	-	A-	-
Long-term "Non-preferred" Senior Unsecured Debt rating[3)]	BB+	-	BBB-	-
Mortgage Pfandbriefe	-	Aa1	-	Aa1
Public Sector Pfandbriefe	-	Aa1	-	Aa1

[1)] This overview does not include all ratings/outlooks.
[2)] "Senior Unsecured Debt".
[3)] "Senior Subordinated Debt".

Rating agencies may alter or withdraw their ratings at any time. Ratings of individual securities issued by pbb may deviate from the ratings indicated above, or an individual security may not be rated at all. For the evaluation and usage of ratings, please refer to the rating agencies' pertinent criteria and explanations, and the relevant terms of use, which are to be considered. Ratings should not serve as a substitute for personal analysis. They do not constitute a recommendation to purchase, sell or hold securities issued by pbb.

Off-balance sheet commitments

Irrevocable loan commitments of €3.1 billion as at the balance sheet date (31 December 2020: €3.3 billion) represent the majority of off-balance sheet commitments. Contingent liabilities on guarantees and warranties amounted to €0.2 billion as at 31 December 2021 (31 December 2020: €0.2 billion).

MATERIAL RELATED PARTY TRANSACTIONS

No material transactions with related parties were entered into during the financial years 2021 and 2020. Please refer to the note on "Relationships with Related Parties" for more details.

SUMMARY

In a challenging market environment, pbb Group achieved a pre-tax recome of € 242 million in 2021. At € 27.6 billion, the financing volume in the Real Estate Finance strategic segment slightly exceeded the previous year's figure (31 December 2020: € 27.0 billion) as at the balance sheet date due to the new business volume of € 9.0 billion, despite higher repayments.

Risk and Opportunity Report

The Risk and Opportunity Report shows the identified risks and the opportunities for the individual risk types within the framework of the implemented risk management and risk controlling system. For more general or bank-wide risks and opportunities, please refer to the Report on Expected Developments.

ORGANISATION AND PRINCIPLES OF RISK AND CAPITAL MANAGEMENT

pbb Group had implemented a Group-wide risk management and risk control system, which provides for uniform risk identification, measurement and limitation in accordance with section 91 (2) of the German Public Limited Companies Act (AktG) and section 25a of the German Banking Act (Kreditwesengesetz – "KWG"). pbb, at a single-entity level, applies an exemption according to section 2a (2) of the KWG. The exemption refers to the requirements concerning the risk control function pursuant to section 25a (1) sentence 3 nos. 1, 2, 3b and 3c of the KWG.

Organisation and Committees

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

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

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

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

The Management Board notifies the Supervisory Board with regard to significant changes in the business and risk strategies as well as the risk profile of pbb Group. The RLA of the Supervisory Board is responsible for controlling the overall risk situation and for monitoring, establishing and improving an efficient risk management system, and is also responsible for the liquidity management and assurance of pbb Group and resolves upon necessary credit approvals for credit decisions. The Management Board notifies this committee of all increases to specific allowances and the creation of new specific allowances (impairment stage 3) in excess of €5 million and also notifies this committee at regular intervals of major exposures with higher levels of risk.

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

The Risk Committee (RC), consists of the CRO (Chairman), the CEO/CFO (Deputy Chairperson), the Chief Credit Officer (CCO), the Head of Risk Management & Control (RMC) and one

Credit Risk Management (CRM) department head. In general, the committee meets on a monthly basis and discusses the risk development, adopts guidelines/policies, methods for risk measurement, the related parameters as well as methods of monitoring for all risk types. The RC is responsible for the development of standard guidelines of risk management and risk controlling across the Group and also monitors the development of the risk-bearing capacity, economic capital, available financial resources as well as the credit portfolio and the compliance with limits. The Risk Committee discusses the portfolio developments of pbb Group. Additional sub-committees have been established beside the Risk Committee, as outlined below.

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

The Watchlist Committee is chaired by the CCO and meets every month. All exposures identified by the early warning system are discussed and, if appropriate, individual measures are decided there; these measures have to be subsequently implemented by the relevant departments. Where necessary, the committee takes decisions regarding the need to transfer exposures to CRM REF Workout, which then takes the necessary steps for restructuring or workout on the basis of an individual exposure strategy. It is then the responsibility of each relevant credit department to obtain all the requisite lending decisions for implementing measures, in line with lending authority regulations.

If there are indicators for an impairment of an exposure's credit rating (impairment stage 3) in accordance with IFRS 9, the result – after determining the extent of any such impairment – is presented to the Risk Provisioning Committee (RPC). It is chaired by the CRO. The RPC takes decisions within the scope of a pre-defined assignment of approval powers and in accordance with IFRS and the German Commercial Code (HGB). It is responsible for decisions, recommendations and the management of all risk provisioning matters.

The New Product Process Committee (NPPC) comprises representatives from the most important units reponsible for infrastructure and controls. The representatives are determined by the RC. The NPPC convenes on an event-driven basis; it is responsible to ensure that, before business commences with new products or in new markets, the resulting risks as well as the related impact on processes, controls and infrastructure are systematically analysed and duly addressed. Only after approval of new product process committee business with new products or in new markets can be started.

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

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

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

Organisation of Risk Management
31 December 2021

Risk Management and Liquidity Strategy Committee (RLA) of the Supervisory Board								
Management Board								
Risk Committee (RC)					Asset and Liability Committee (ALCO)	Legal and Regulatory Risk Committee[1] (LRRC)	Outsourcing Committee (OC)	Environmental, Social and Governance (ESG) Committee
Credit Committee	Watchlist Committee	Risk Provisioning Committee	New Product Process Committee	Stress Test Committee				

[1] Reporting via Compliance.

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

Organisation of Chief Risk Officer (CRO)
31 December 2021

Chief Risk Officer (CRO)			
Risk Management & Control (RMC)	Credit Risk Management (CRM)	Operations	Compliance

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

- The unit Risk Management & Control, which is amongst others responsible for monitoring market, credit, operational and liquidity risks as well as the risk-bearing capacity of pbb Group and which is also responsible for Group-wide uniform risk measuring methods and risk reports.
- The unit of the Chief Credit Officer of pbb Group, which is responsible for the analysis of new business and portfolio management. In addition, CRM REF also comprises the Workout unit, which is responsible for the recovery and workout of all critical exposures, and the central unit Credit Processes, which is responsible in particular for the organisation of the Credit Committee, the improvement of data quality within CRM and implementation of regulatory requirements in the credit processes.
- The unit Operations, which is responsible for the global servicing and administration of the loan portfolio (including technical implementation of loan agreements), settlement

of capital markets transactions, administration and processing of the Group's securities and derivatives portfolios, as well for handling domestic and international payments.

> The unit Compliance, has amongst others established checking and reporting processes with regard to money laundering, sanctions, embargos and other criminal acts, capital market compliance as well as for other Compliance topics. In addition, the Compliance function is responsible for counteracting any risks arising from non-compliance with legal rules and requirements. Compliance is responsible for the central coordination of key controls within the framework of the Internal Control System. Compliance is also represented in various committees.

In addition to the CRO function, the independent Property Analysis & Valuation (PAV) department and Group Internal Audit units complement the pbb Group's risk management system. PAV is responsible for the analysis and uniform valuation of properties serving as collateral, using market valuation and loan-to-value methods, as well as for the monitoring of financed developments. The area of responsibility of Group Internal Audit comprises risk-oriented regular as well as event-driven audits of processes, controls and systems. This also includes the revision of the risk management system.

Risk Strategy and -Policies

In conjunction with the business strategy, the risk strategy provides the basis for pbb Group's planning and business policy action. The risk strategy has been defined on the basis of the Group-wide risk appetite; it reflects pbb Group's strategic direction as a specialist for real estate finance and public investment finance with a focus on Pfandbrief funding. Moreover, the risk strategy defines the guidelines which form the basis of the risk culture for pbb Group. Subject to any special requirements at single-entity level, the risk strategy is applicable for pbb Group's operating segments and legal entities. It is reviewed and updated at least annually.

As part of the annual strategy development process, the risk strategy for 2021 was drawn up, adopted by the Management Board and approved by the Supervisory Board. The risk strategy was updated at the beginning of the second half of 2021, reflecting the extension of the product range to incorporate the (single-borrower) loan-on-loan and (US) senior mezzanine lending initiatives.

The risk strategy is enshrined in the operative business via risk policies for the individual operating segments, as well as frameworks, guidelines or instructions for all major risk types set out in the valid risk inventory. The individual policies are reviewed and updated regularly if necessary. They contain information on risk measurement, risk monitoring and risk management. The limit-setting process – as well as the escalation process if a limit is exceeded – are also described in the policies.

Risk Reporting

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

Risk Quantification and Risk Management

For the purposes of systematically identifying and analysing potential risks arising from the business model or pbb Group's external environment, the Group carries out a comprehensive risk inventory at least once a year. The objective of this risk inventory is to establish a full risk profile which identifies any and all risks, provides an assessment as to whether these risks are material for the capitalisation and liquidity status of pbb Group, and scans them for the existence of potential risk concentrations. Where possible, risks are quantified using applicable risk models or other methods.

Risks which cannot be quantified (or only in part) are monitored and managed using dedicated capital buffers or separate management tools, as well as by way of regular, detailed reports and clearly-defined requirements such as the Compliance and Corporate Governance guidelines.

pbb Group's approach to managing risk, capital and liquidity is based on the Internal Capital Adequacy Assessment Process (ICAAP) and the Internal Liquidity Adequacy Assessment Process (ILAAP), each of which is seen in a normative and an economic perspective. The normative perspective is geared towards ongoing fulfilment of all of the Bank's capital- and liquidity-related legal requirements and supervisory demands. The economic perspective covers all material risks which might threaten pbb Group's economic viability, with a focus on the present-value analysis of risks.

Besides the measurement, limitation and monitoring of risks, all risk management approaches also comprise regular reporting as well as escalation processes; they are supplemented by scenario analyses and stress testing. To adequately monitor ESG risks, pbb Group is working on integrating the various ESG risk factors into the relevant types of risk, including monitoring, quantification and reporting. Moreover, climate-specific stress tests and scenario analyses are continuously being further developed. Within the framework of these strategic management approaches, pbb Group defines its risk appetite, which sets out the scope within which pbb Group is prepared to assume risks. pbb Group uses this information to derive input for operative management, through limit systems, committee decisions, and other management decisions.

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

Effects of the COVID-19 pandemic on risk and portfolio management

At an early stage of the COVID-19 pandemic, the Management Board of Deutsche Pfandbriefbank AG (pbb) took numerous measures in order to be able to immediately identify, assess and adequately respond to developments and potential risks in connection with the pandemic. The analysis of the implications of the COVID-19 pandemic on pbb Group's business model and its capital adequacy was also part of the regular process of revising the business and risk strategy. In order to address the impact of the pandemic on the risk profile, the Bank especially expanded capacities and sharpened the professional focus. For example, the Management Board of pbb has established a Task Force with various workstreams across departments and divisions, which deals more intensively with certain asset classes such as hotel, retail or office, the handling of government support measures for borrowers and the regulatory aspects in the context of COVID-19, as well as preparing sector and market analyses. By means of portfolio screening measures and taking targeted and pre-defined filters into account, subsets of the existing portfolios were identified and then examined for increased susceptibility to the effects of the pandemic, with greater involvement of divisional and departmental management levels. Subsequently, pbb Group intensified its monitoring activities and reporting for certain portfolio clusters. The monitoring was particularly focused on cash flow and collateral developments. With respect to the latter, whenever there were indications of a material value loss, corresponding extraordi-

nary valuations were carried out. In terms of reporting, the Bank increasingly focused on the requested deferrals of repayments or the desired adjustments to other contractual obligations in the loan agreements, as well as on portfolio clusters and asset classes that had an increased susceptibility to the negative effects of the COVID-19 pandemic. In addition, certain process flows – especially in the Credit Risk Management – were adjusted to the conditions brought about by the COVID-19 pandemic, and new work instructions were introduced after they had been discussed and approved in the Risk Committee. Credit standards were tightened substantially in new business.

The Management Board and the Supervisory Board frequently discussed current developments during the period under review, and the regular weekly Management Board meeting for loans was significantly expanded with view to content and meeting time. Moreover, the Supervisory Board was involved at an earlier stage in the discussion and decision-making process for certain new business applications.

As part of an integrated approach, the impact of macroeconomic stress scenarios on the material metrics of the normative and economic perspectives was calculated within the ICAAP for a horizon of several years during the period under review. Stress scenarios were developed in the wake of the COVID-19 pandemic, and analyses carried out as to how these scenarios affect the Group. Given the highly dynamic development, these scenarios are subject to a considerable uncertainty.

Regular portfolio screening was shifted to a quarterly process in 2021 – with the objective of recognising potential risks emanating from possibly susceptible portfolio clusters at an early stage, dealing with them accordingly in the critical facility process.

The Coronavirus Task Force continued its reporting to the Management Board regarding support measures applied for by clients (such as repayment deferrals or covenant waivers); as in 2020, these reports were submitted on a weekly basis until the third quarter of 2021. From the fourth quarter of 2021, this reporting was moved to a monthly frequency, since the situation was visibly stabilising and there were hardly any further client requests for such support measures directly related to the coronavirus pandemic. Whilst the very close monitoring of property values, introduced during the pandemic, has largely been returned to the ordinary process, certain clusters continue to be closely monitored. Likewise, regular reports are submitted to the regulatory authorities.

RISK TYPES

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

- Credit risk (counterparty risk)
- Market risk
- Liquidity and Funding risk
- Operational risk
- Business and strategic risk
- Property risk
- Pension risk
- Central counterparty risk
- Environmental, social and governance risk

Credit Risk (Counterparty Risk)

Definitions

The credit risk in general is defined as the risk due to an unexpected default or decline in the market value of a receivable (loan or bond) or a derivative (alternatively of an entire portfolio of claims/derivatives). The reason for this can be either a deterioration in a country's or counterparty's creditworthiness or by a deterioration in collateralization.

The credit risk comprises the default risk, migration risk, realization risk of defaulted positions, transfer and conversion risk, tenant risk, settlement risk, extension risk as well as concentration risk which are defined as follows in pbb Group's risk strategy:

- Default risk denotes the risk of a default occurring on receivables. This includes defaults of loans or other credit products (lending risk), or bonds and other securities (issuer risk), as well as the risk of default on receivables under derivatives contracts (counterparty risk/replacement risk) or money market transactions (repayment risk). The possible default of sovereign or regional governments is included as a special case (sovereign default risk).
- Migration risk is the risk of a loss in value of a receivable caused by rating migration. This includes both the risk of rating migrations of traditional borrowers as well as rating migration of bonds and other securities and receivables from derivatives and money market transactions. The impact of a rating migration concerning sovereign or regional governments as a special case is included, too.
- Realisation risk related to defaulted clients is the risk that the risk provisioning recognised changes over the analysis period, or the risk of actual amounts realised differing from the risk provisioning.
- Transfer risk is the risk that a government or central bank restricts the use of the currency to their own country. This includes the conversion risk, which is the risk that a government or central bank declares its own currency as non-convertible. Together with the sovereign risk, the transfer and the conversion risk form the country risk.
- Tenant risk describes the risk that losses in rental income for properties will negatively influence the respective borrowers' debt service capacity. In addition, it includes the secondary concentration risk (tenant cluster risk), which arises when one and the same tenant is involved in multiple properties funded by the pbb.
- Fulfilment risk is defined as the risk that the pbb makes a payment or delivers an asset which has been sold to a counterparty but does not receive a payment or the purchased asset.
- Extension risk is the risk of an unexpected extension of the holding period of a credit risk related asset.
- Concentration risk is defined as the risk of cluster formation in relation to a risk factor or counterparty, or a strongly correlated group of risk factors or counterparties.

Credit Risk Strategy and Principles

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

Please refer to the information in the section "Fundamental Information about the Group" for a description of the business focus with regard to strategic portfolios, and for statements outlining the strategy adopted for the run-down portfolio.

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

> The pbb Group Risk Report contains the development in volumes as well as relevant credit risk management indicators such as the development of the expected loss as well as the unexpected loss via value at risk (VaR). The report shows the credit risk at the level of pbb Group in the context of the overall bank risk and the risk-bearing capacity, it reports limit utilisations and violations of existing limits, and also identifies risk concentrations. Key indicators, such as the development of the exposure at default (EaD), the expected loss (EL), the credit value at risk (Credit VaR) as well as problem loans are integrated in this report and are discussed by the Management Board; the report is also submitted to the RLA of the Supervisory Board to be noted and dealt with by the RLA regularly in its meetings.
> For decisions to be made regarding new business, or regarding material changes to the credit quality of existing financings (such as a maturity extension), key financial indicators, content and analysis on a case-by-case basis are presented to, and discussed by the Credit Committee.
> In the active business, further regular reports support operational management with regard to the management and timely recognition of risks at the sub-portfolio level.
> Unusual developments which might result in a major deterioration in the risk position of an individual exposure are ad-hoc reported to a wider group up to the CRO by way of so-called “Credit Issue Notes”.

Credit Risk Quantification via Economic Capital and Risk-weighted Assets according to Capital Requirements Regulation (CRR)
Credit Portfolio Model For calculating the economic capital for credit risk pbb Group uses a credit portfolio model. For details concerning this model and economic credit risk quantification, please refer to the sections “Internal Capital Adequacy Assessment Process (ICAAP)”.

Stress Testing The stress tests for economic capital in credit risk are described in greater detail in the section “Internal Capital Adequacy Assessment Process (ICAAP)”.

In addition to the stress tests for economic capital, there are also RWA reverse stress tests. These are designed to examine the extent to which a certain risk parameter (e.g. rating, loss given default (LGD), currency) may change before a minimum ratio (Common Equity Tier 1 (CET1) ratio, Tier 1 ratio or own funds ratio) is no longer met. The minimum ratios are based on the bank-specific SREP ratios. Tolerance change levels have been defined for all tested risk parameters; these levels must not be violated if the test of pbb Group is to be successfully completed.

Credit Risk Quantification according to CRR The Basel III Framework Agreement of the Basel Committee was implemented in the European context by means of the CRR. pbb Group applies the so-called Advanced IRBA and the Standardised Approach (STA).

Credit Risk Management and Monitoring

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

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

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

- Analysis of portfolio developments in the Risk Committee
- Determining the credit-VaR at the portfolio level by way of a credit portfolio model and partly limiting at the segment level; analysis of concentration risks and various stress tests
- Central Group-wide monitoring of risk concentrations by way of special, regular and ad hoc evaluations, such as regional or product-specific evaluations
- Continuous analysis of the portfolio and the relevant markets by the local Credit Risk Management units
- Regular evaluation of the collateral
- Special reports for exposures which are potentially at risk (e. g. “credit issue notes”)
- Calculation of a risk-adjusted margin using the economic return after tax

Depending upon the counterparty group, Expected Loss class or exposure size at counterparty group level, the lending authority regulations determine the approval powers for new as well as existing exposures. Approval powers are assigned to individual employees in line with their individual experience and qualification.

Credit Risk Management and Monitoring At the level of individual transactions, the credit process guidelines define the necessary steps of assessing risk for new business as well as for substantial changes as prolongations or increase of credit limit and the procedures for transferring exposures to the watchlist or workout.

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

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

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

Defined early warning indicators are constantly monitored by CRM. If essential problems are identified, an exceptional test is performed on the credit default risk (including a review of the value of collateral) and appropriate alternative actions are identified. This includes irregularities in connection to the COVID-19 pandemic. Such cases are also included in a monthly, at least quarterly monitoring cycle and presented in the Watchlist Committee.

If there are indicators for a deterioration of credit quality, the level of the stage 3 impairment is calculated in accordance with IFRS or, in the case of specific allowances, in accordance with the HGB. In the Risk Provisioning Committee, the results are discussed and, where necessary, decisions are taken with regard to creating or reversing stage 3 impairments/specific allowances.

Where an individual decision is taken as to whether a potential problem exposure (or stage 3 impairment (IFRS) or a specific allowance (HGB)) – is to be restructured or liquidated, probability-weighted scenario analyses outlining the potential development of the borrower, of collateral and/or the relevant market, are taken into account. Decisions to this effect are made within the scope of the pbb's valid assignment of authority.

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

Hedging and Minimising Risk by Collateral

In the REF segment, financing arrangements are normally backed by property charges. As part of the decision-making process in the case of new financing, the LTVs (loan-to-value) as well as the property (amongst others micro and macro location, rental situation, condition of property) and market circumstances are discussed and are also taken into consideration as part of the assessment process for individual loans. For existing exposures, this monitoring is carried out on a regular basis, at least annually.

Besides real property liens, collateral provided for financings in the REF segment also includes assignments of rental payments as well as insurance benefits; this is supported by borrowers' extensive information and reporting obligations. Apart from the property charges, only a few more selected securities are considered to be of value in the credit assessment process or in the calculation of LGD, and in particular this is applicable for cash security, furthermore under certain circumstances bank guarantees, other credit protections as well as guarantees of public-sector institutions. Corresponding risk buffers are considered in relation to foreign currency collateral, that means in a currency differing from the loan currency, in order to take account of potential exchange rate risks.

Properties in the REF business are valued using strict quality criteria. Property collateral values are determined when the loan is initially granted, and reviewed on an annual basis. With PAV, pbb maintains an independent real estate analysis unit which reports to the Management Board member responsible for Treasury: All staff members in the PAV department who are involved in real estate analysis are certified in accordance with ISO 17024 (HypZert standard), and have usually gained additional qualifications (such as RICS membership). This department is always involved in the initial valuation (when a new loan is granted) or regular revaluations, as well as in the valuation reviews which are carried out at least once a year. Depending on the type and location of the property involved, market developments and other risk indicators, valuation reviews may also be carried out, in some cases, by credit department staff (CRM), based on defined parameters and processes.

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

In the PIF segment, guarantees are often accepted as collateral (including contractual guarantees from public-sector authorities, export credit guarantees). Moreover, Public Investment Finance exposures often involve a specific legal framework, such as the maintenance obligation (the so called Anstaltslast) of public-sector entities in Germany, or other (direct and indirect) cover mechanisms which allow for recourse to a public-sector institution in the case of borrowers organised under public law. For some exposures in PIF, guarantees and indemnities or the legal framework are supplemented by additional loan collateral, as well as borrowers' information and reporting obligations. However, such additional loan collateral is generally not considered as valuable in assessing the exposure, or for the purposes of calculating LGD.

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

Credit Portfolio
The entire credit portfolio of the pbb Group is calculated by using the EaD.

For most products, EaD is equal to the IFRS carrying amount (including accrued interest). Committed, undrawn credit lines are additionally included in EaD with a product-specific credit conversion factor (CCF). The CCF indicates the portion of an undrawn credit line that is expected to be drawn upon (based on experience) within one year before a potential default. Derivatives and repo transactions are an exception since their EaD is not identical to their carrying amount but must be determined, in accordance with the CRR using a different methodology. This applies, for example, to derivatives in accordance with the SA-CRR method, which has replaced the mark-to-market method under CRR II since June 2021.

The Group's credit portfolio had an aggregated EaD of € 57.5 billion as of 31 December 2021 (31 December 2020: € 58.0 billion).

Overview of the Total Exposure of pbb Group: € 57.5 billion EaD
The credit portfolio is broken down into three segments:
- Real Estate Finance (REF)
- Public Investment Finance (PIF) as well as
- the non-strategic segment Value Portfolio (VP) which is earmarked for being wound down.

In addition, "Consolidation & Adjustments" shows besides the internal reconciliation and consolidation positions, the EaD for transactions which are not directly attributable to the operating segments. These are basically asset positions for asset and liability management.

EaD in C&A as of 31 December 2021 was almost fully attributable (>99%; 31 December 2020: >99%) to EL classes 1 to 8; according to the internal classification, these are considered investment grade.

Total portfolio: EaD according to operating segments

in € billion	31.12.2021	31.12.2020	Change in € billion	Change in %
Real Estate Finance	29.7	29.3	0.4	1.4
Public Investment Finance	5.7	6.5	-0.8	-12.3
Value Portfolio	13.8	15.2	-1.4	-9.2
Consolidation & Adjustments	8.3	7.0	1.3	18.6
Total	**57.5**	**58.0**	**-0.5**	**-0.9**

As of 31 December 2021, the total exposure (EaD) of the pbb Group decreased by € 0.5 billion to € 57.5 billion, compared to year-end 2020. Explanations concerning changes in individual segments are provided with the detailed presentation of the respective segment. The percentage of EaD in the strategic REF segment increased slightly, to 52% (31 December 2020: 51%). The percentages of EaD were down compared to year-end 2020, both in PIF (10%; 31 December 2019: 11%) and in the VP segment (24%; 31 December 2020: 26%). The percentage share of the EaD in C&A was up compared to year-end 2020 due to an increase in the exposure to central banks (14%; 31 December 2020: 12%).

Risk Parameters The expected loss (EL) for a time period of one year is calculated for the entire exposure, with the exception of non-performing loans for which a stage 3 impairment has already been recognised. The EL is calculated using the parameters defined under Basel III, i.e. PD, LGD and EaD.

EL for pbb Group amounted to €161 million as at 31 December 2021 (31 December 2020: €133 million). The rise in expected loss was largely attributable to the rating downgrades in the REF portfolio.

Since 1 April 2021, pbb has applied the new default definition according to EBA Guideline 2016/07.

Total exposure: expected loss according to operating segments

in € million	31.12.2021	31.12.2020	Change in € million	Change in %
Real Estate Finance	139	110	29	26.4
Public Investment Finance	2	2	-	-
Value Portfolio	20	20	-	-
Consolidation & Adjustments	-	-	-	-
Total	**161**	**133**	**28**	**21.1**

Future developments, such as changes in the economic environment or developments concerning individual risks, may result in changes to the EL figures set out above. Furthermore, actual losses incurred may differ from expected losses.

Economic Credit Risk Capital pbb Group calculates economic capital for credit risk using a credit portfolio model. For details concerning credit risk quantification, please refer to the section “Internal Capital Adequacy Assesment Process (ICAAP)”.

Regional Breakdown of the Portfolio At the reporting date, the main focus of the exposure of pbb Group was unchanged on Western Europe. Germany continued to account for most of the overall exposure, with 45% (€25.6 billion).

The year-on-year EaD rise in Germany (by €0.6 billion) was mainly attributable to a higher exposure to a central bank in C&A, offset by repayments in the REF, PIF and VP segments. Portfolio growth in France and in the US was largely due to new REF business, with currency effects additionally applicable in the US. The reduction for Austria was essentially due to changes in the general interest rate levels and the associated changes in hedge adjustments in the VP. The decline in the UK was attributable to repayments in the REF segment, which were partly offset by lower volumes of new business and currency effects.

The largest items of the category "Other Europe" were the Netherlands with €1.3 billion and Belgium with €0.3 billion (31 December 2020: the Netherlands €1.1 billion, Belgium €0.3 billion). The category "Other", which accounted for €1.1 billion (or around 2% of the portfolio), largely comprises bonds issued by supranational organisations.

Total portfolio: EaD according to regions

			Change	
in € billion	**31.12.2021**	**31.12.2020**	in € billion	in %
Germany	25.6	25.0	0.6	2.4
France	7.8	7.5	0.3	4.0
Austria	6.1	6.8	-0.7	-10.3
USA	3.8	2.9	0.9	31.0
United Kingdom	2.8	3.3	-0.5	-15.2
Other Europe[1)]	2.5	2.5	-	-
Spain	2.2	2.3	-0.1	-4.3
Italy	1.7	2.0	-0.3	-15.0
Poland	1.5	1.6	-0.1	-6.3
Other[2)]	1.1	1.3	-0.2	-15.4
Sweden	0.9	0.9	-	-
Portugal	0.6	0.7	-0.1	-14.3
Czech Republic	0.4	0.4	-	-
Finland	0.3	0.6	-0.3	-50.0
Hungary	0.2	0.2	-	-
Total	**57.5**	**58.0**	**-0.5**	**-0.9**

[1)] As of 31 December 2021 the category "Other Europe" comprises the Netherlands, Belgium, Slovakia, Switzerland, Romania, Slovenia, Luxembourg, Ireland, Norway, Latvia and Denmark.
[2)] As of 31 December 2021 the category "Other" comprises amongst others Supranationals, Japan and Canada.

Depending on the results of the internal rating process, maximum limits are defined for each individual country; these limits restrict pbb Group's business activities. All country limits are monitored daily in the unit RMC.

Real Estate Finance: € 29.7 billion EaD

The REF segment comprises real estate loans and related customer derivatives. The EaD of the REF portfolio, which in comparison with the funding volume shown in the chapter "Development in Earnings" also includes undrawn credit lines – multiplied by a product-specific conversion factor – increased slightly year-on-year by €0.4 billion to €29.7 billion. On balance, exposure in Real Estate Finance was reduced in Germany and the United Kingdom, due to repayments exceeding new business and additional currency effects in the United Kingdom. The portfolio grew slightly due to new business originated in France and in the USA. As at 31 December 2021, client derivatives included in the portfolio amounted to €0.1 billion EaD and thus held steady on the previous year-end.

Real Estate Finance: EaD according to regions

in € billion	31.12.2021	31.12.2020	Change in € billion	Change in %
Germany	13.9	14.0	-0.1	-0.7
France	3.8	3.3	0.5	15.2
USA	3.7	2.9	0.8	27.6
United Kingdom	2.6	3.1	-0.5	-16.1
Other Europe[1)]	1.9	1.8	0.1	5.6
Poland	1.4	1.3	0.1	7.7
Sweden	0.9	0.9	-	-
Czech Republic	0.4	0.4	-	-
Spain	0.4	0.3	0.1	33.3
Finland	0.3	0.5	-0.2	-40.0
Austria	0.3	0.4	-0.1	-25.0
Hungary	0.2	0.2	-	-
Italy	0.1	0.1	-	-
Total	**29.7**	**29.3**	**0.4**	**1.4**

[1)] As of 31 December 2021 the category "Other Europe" comprises the Netherlands, Switzerland, Romania, Belgium, Slovakia, Luxembourg, Slovenia and Norway.

EaD by property type increased for office properties, due to new business and currency effects, whilst declines were recorded in the housing construction, retail, and hotel/leisure categories in particular.

Real Estate Finance: EaD according to property type

in € billion	31.12.2021	31.12.2020	Change in € billion	Change in %
Office buildings	15.6	13.9	1.7	12.2
Housing construction	4.9	5.2	-0.3	-5.8
Retail	3.3	4.3	-1.0	-23.3
Logistics/Storage	3.5	3.4	0.1	2.9
Hotel/Leisure	1.2	1.4	-0.2	-14.3
Other	0.7	0.6	0.1	16.7
Mixed use	0.5	0.5	-	-
Total	**29.7**	**29.3**	**0.4**	**1.4**

At 31 December 2021, investment financings continued to dominate the portfolio (88%; 31 December 2020: 85%); development financings accounted for 11% of EaD (31 December 2020: 14%). Investment financings are defined as real estate loans, the debt servicing ability of which largely depends upon current cash flows from the property.

Real Estate Finance: EaD according to loan type

in € billion	31.12.2021	31.12.2020	Change in € billion	Change in %
Investment financing	26.1	24.9	1.2	4.8
Development financing	3.4	4.1	-0.7	-17.1
Customer derivatives	0.1	0.1	-	-
Other	0.1	0.1	-	-
Total	**29.7**	**29.3**	**0.4**	**1.4**

Public Investment Finance: € 5.7 billion EaD

The portfolio comprises the following financing:

(I) Financing concluded directly with a public sector debtor, eligible according to the Pfandbrief Act, on the basis of a specific earmarking according to a defined product catalogue;

(II) Financing of companies, which have a public sector or private legal structure and funding, which are to a great extent collateralised with a public sector guarantee within the meaning of the German Pfandbrief Act (transport and utility companies, municipal utilities, special-purpose associations, management companies, non-profits, associations); and

(III) Financing of special-purpose vehicles, which are almost entirely collateralised with a public sector guarantee within the meaning of the German Pfandbrief Act. This also includes export financings covered by insurance policies or guarantees issued by the Federal Government or by other export credit agencies permitted for inclusion in Pfandbrief cover.

In addition, the portfolio comprises only very few financings for public-sector institutions without public guarantee.

EaD in the PIF segment declined by €0.8 billion compared to the previous year's end, due to repayments and maturities that were not offset by new business volumes.

Public Investment Finance: EaD according to regions

			Change	
in € billion	**31.12.2021**	**31.12.2020**	in € billion	in %
France	3.1	3.4	-0.3	-8.8
Germany	1.1	1.3	-0.2	-15.4
Spain	0.7	0.9	-0.2	-22.2
Austria	0.3	0.3	-	-
Other Europe[1]	0.2	0.2	-	-
United Kingdom	0.2	0.2	-	-
Other[2]	0.1	0.1	-	-
Finland	0.1	0.1	-	-
Sweden	-	-	-	-
Total	**5.7**	**6.5**	**-0.8**	**-12.3**

[1] As of 31 December 2021 the category "Other Europe" comprises Belgium, the Netherlands and Switzerland.
[2] As of 31 December 2021 the category "Other" comprises mainly Canada.

"Public Sector Borrowers" summarises claims against sovereign states (27%), public-sector enterprises (19%), and regional governments and municipalities (55%). The definition also includes exposures guaranteed by these counterparties.

Public Investment Finance: EaD according to counterparty structure

			Change	
in € billion	**31.12.2021**	**31.12.2020**	in € billion	in %
Public sector borrowers	5.5	6.3	-0.8	-12.7
Companies/special-purpose entities[1]	0.2	0.2	-	-
Financial institutions[2]	-	-	-	-
Total	**5.7**	**6.5**	**-0.8**	**-12.3**

[1] Largely collateralised by guarantees and surety bonds.
[2] Financial institutions with a state background or state guarantee as of 31 December 2021: €2 million.

Value Portfolio: € 13.8 billion EaD
The Value Portfolio comprises non-strategic portfolios of the pbb Group.

In line with the strategy, the further decrease in the exposure as of 31 December 2021 compared with 31 December 2020 was mainly due to repayments in exposures to Germany and Italy. The EaD decrease for Austria was essentially due to changes in the general interest rate levels and the associated hedge adjustments. Germany and Austria continued to account for the lion's share of the portfolio.

Value Portfolio: EaD according to regions

in € billion	31.12.2021	31.12.2020	Change in € billion	Change in %
Austria	5.6	6.1	-0.5	-8.2
Germany	3.6	3.9	-0.3	-7.7
Italy	1.6	1.8	-0.2	-11.1
Spain	0.9	0.9	-	-
Other[1]	0.8	0.8	-	-
France	0.7	0.7	-	-
Portugal	0.6	0.7	-0.1	-14.3
Poland	0.1	0.2	-0.1	-50.0
Other Europe[2]	-	-	-	-
Hungary	-	-	-	-
Czech Republic	-	-	-	-
Finland	-	-	-	-
Total	**13.8**	**15.2**	**-1.4**	**-9.2**

[1] As of 31 December 2021 the category "Other" comprises Supranationals and Japan.
[2] As of 31 December 2021 the category "Other Europe" comprises Slovenia with €18 million.
[3] Finland (31 December 2021): €10 million.

EaD by Counterparty is shown including regulatory permitted guarantees or other forms of credit support.

Value Portfolio: EaD according to counterparty structure

in € billion	31.12.2021	31.12.2020	Change in € billion	Change in %
Public sector borrowers	12.7	14.0	-1.3	-9.3
Financial institutions[1]	1.1	1.1	-	-
Companies	-	-	-	-
Total	**13.8**	**15.2**	**-1.4**	**-9.2**

[1] Mainly Spanish covered bonds.

Structured Products
pbb Group's residual holdings of Collateralised Debt Obligations guaranteed by a regional government had a notional value of €0.3 billion as at 31 December 2021 (31 December 2020: €0.4 billion) and a current fair value of €0.3 billion (31 December 2020: €0.3 billion).

Breakdown of on-balance sheet and off-balance sheet business by rating class
The following tables provide a breakdown of gross carrying amounts of non-derivative financial assets (excluding cash funds), and of default risks in irrevocable loan commitments and contingent liabilities, by internal rating class and impairment level. The breakdown is in line with pbb Group's internal rating classes. The default definition follows Article 178 of the CRR.

Breakdown of non-derivative financial assets (excluding cash funds) by internal rating class and impairment level (as at 31 December 2021)

in € million	Stage 1	Stage 2	Stage 3	FVPL	**Total**
Class 1	1,947	-	-	44	1,991
Class 2	11,852	-	-	161	12,013
Class 3	835	-	-	-	835
Class 4	-	-	-	-	-
Class 5	1,168	-	-	-	1,168
Class 6	-	-	-	-	-
Class 7	1,211	-	-	-	1,211
Class 8	1,398	180	-	-	1,579
Class 9	5,409	151	-	89	5,649
Class 10	2,515	616	-	40	3,170
Class 11	3,940	814	-	-	4,754
Class 12	3,424	1,510	-	75	5,009
Class 13	1,969	1,454	-	-	3,423
Class 14	901	475	-	25	1,400
Class 15	806	1,106	-	74	1,986
Class 16	629	675	-	-	1,304
Class 17	306	812	-	50	1,167
Class 18	597	707	-	5	1,309
Class 19	437	227	-	28	692
Class 20	142	287	-	50	478
Class 21	144	134	-	-	278
Class 22	-	42	-	-	42
Class 23	-	-	-	-	1
Class 24	-	-	-	-	-
Class 25	-	106	-	-	106
Class 26	-	-	-	-	-
Class 27	-	136	-	-	136
Defaulted	-	-	579	-	579
Total	**39,627**	**9,432**	**579**	**640**	**50,278**

Breakdown of non-derivative financial assets (excluding cash funds) by internal rating class and impairment level (as at 31 December 2020)

in € million	Stage 1	Stage 2	Stage 3	FVPL	**Total**
Class 1	882	-	-	-	882
Class 2	13,888	26	-	322	14,236
Class 3	199	-	-	-	199
Class 4	-	-	-	-	-
Class 5	1,395	-	-	-	1,395
Class 6	-	-	-	-	-
Class 7	206	-	-	-	206
Class 8	1,687	15	-	-	1,702
Class 9	5,703	125	-	90	5,918
Class 10	3,671	390	-	-	4,061
Class 11	5,821	634	-	40	6,495
Class 12	3,285	1,339	-	77	4,702
Class 13	1,360	1,697	-	87	3,144
Class 14	1,086	987	-	-	2,073
Class 15	338	1,003	-	-	1,342
Class 16	523	896	-	-	1,419
Class 17	510	513	-	-	1,022
Class 18	438	396	-	-	834
Class 19	82	356	-	-	438
Class 20	135	70	-	-	205
Class 21	-	70	-	-	70
Class 22	-	1	-	-	1
Class 23	-	1	-	-	1
Class 24	-	42	-	-	42
Class 25	-	36	-	-	36
Class 26	-	-	-	-	-
Class 27	-	129	-	-	129
Defaulted	-	-	455	15	470
Total	**41,210**	**8,726**	**455**	**632**	**51,023**

Breakdown of irrevocable loan commitments and contingent liabilities by internal rating class and impairment level (as at 31 December 2021)

in € million	Stage 1	Stage 2	Stage 3	**Total**
Class 1	-	-	-	-
Class 2	172	-	-	172
Class 3-6	-	-	-	-
Class 7	-	-	-	-
Class 8	39	-	-	39
Class 9	8	23	-	31
Class 10	87	29	-	116
Class 11	120	15	-	135
Class 12	417	119	-	535
Class 13	200	83	-	283
Class 14	59	46	-	105
Class 15	143	16	-	159
Class 16	478	70	-	548
Class 17	131	119	-	250
Class 18	357	233	-	590
Class 19	102	32	-	134
Class 20	51	77	-	127
Class 21	-	-	-	-
Class 22	-	11	-	11
Class 23-24	-	-	-	-
Class 25	-	66	-	66
Class 26-27	-	-	-	-
Defaulted	-	-	-	-
Total	**2,362**	**939**	**-**	**3,301**

Breakdown of irrevocable loan commitments and contingent liabilities by internal rating class and impairment level (as at 31 December 2020)

in € million	Stage 1	Stage 2	Stage 3	Total
Class 1	-	-	-	-
Class 2	171	-	-	171
Class 3-6	-	-	-	-
Class 7	30	-	-	30
Class 8	73	-	-	73
Class 9	110	-	-	110
Class 10	50	26	-	75
Class 11	314	41	-	355
Class 12	366	15	-	381
Class 13	204	14	-	219
Class 14	495	12	-	507
Class 15	164	55	-	219
Class 16	388	92	-	480
Class 17	319	23	-	342
Class 18	286	31	-	318
Class 19	35	135	-	170
Class 20	-	4	-	4
Class 21	-	-	-	-
Class 22	-	-	-	-
Class 23-24	-	-	-	-
Class 25	-	-	-	-
Class 26-27	-	-	-	-
Defaulted	-	-	-	-
Total	**3,008**	**447**	**-**	**3,455**

In the context of the management overlay, financial assets with a gross carrying amount of €3,066 million were transferred from stage 1 impairments to stage 2 impairments, although they would not have fulfilled the stage 2 requirements according to the model. Taking into account the financial assets outside of the defined sub-portfolios which were reclassified from stage 2 to stage 1 in line with normal procedure, due to the generally more positive macroeconomic expectations, the gross carrying amount of stage 2 financings increased by €701 million as at 31 December 2021 compared to the previous year.

Watchlist and Non-performing Loans

Early Warning System The early warning system of the pbb Group has defined criteria respectively threshold values (triggers) for including loans in the watchlist and for being classified as restructuring or workout loans (e.g. past due payments, failure to meet financial ratios – e.g. loan-to-value [LTV], interest service coverage [ISC]). The system – in part on an IT-supported, automated basis – constantly monitors whether a trigger has been set off. In case of a corresponding indication, the credit exposure is analysed and presented to the Watchlist Committee. Taking into consideration the overall circumstances, the Watchlist Committee then decides whether a prompt transfer of the exposure to watchlist or restructuring and workout loans is appropriate. In this context, the financial instruments are reviewed for credit impairment.

Indicators for Watchlist and non-performing loans (restructuring and workout loans) include amongst others:

> Watchlist Loans: Payments past due by more than 60 days or another defined early warning signal is triggered (for instance insolvency of a main tenant in the REF segment).
> Restructuring Loans: A default has occurred (for example, due to payments past due by more than 90 days, or the borrower's insolvency), or another contractual or regulatory trigger is applicable. The focus with restructuring is on active implementation of a restructuring concept – with the objective of either returning the exposure to regular coverage, or realising collateral on the market, without

enforcement measures. Credit quality is consistently tested for deterioration, and stage 3 impairments (in accordance with IFRS) or specific allowances (in accordance with the HGB) are recognized if necessary.

> Workout Loans: There are no indications that the loan can be restructured. Enforcement measures have been/will be introduced. Stage 3 impairments (in accordance with IFRS) or specific allowances (in accordance with the HGB) were recognised if necessary.

CRM REF Workout is responsible for carrying out an impairment test in line with the relevant accounting regulations (HGB and IFRS).

Development of Watchlist and non-performing loans of pbb Group

	31.12.2021				31.12.2020				Change	
EaD in € million	REF	PIF	VP	Total[1]	REF	PIF	VP	Total[1]	in € million	in %
Workout loans	14	-	-	14	14	-	-	14	-	-
Restructuring loans	533	32	-	565	403	53	-	456	109	23.9
Non-performing loans	**547**	**32**	**-**	**579**	**417**	**53**	**-**	**470**	**109**	**23.2**
Watchlist loans	**576**	**-**	**-**	**576**	**323**	**7**	**-**	**330**	**246**	**74.5**

[1] No exposure in C&A.

Watchlist and non-performing loans increased by a net €355 million between 31 December 2020 and 31 December 2021.

The net €246 million increase in watchlist loans reflected a total of €504 million in additions in the REF segment, offset by full repayments totalling €146 million, as well as partial repayments/restructurings of €67 million. Additional loans of €39 million were transferred to recovery management.

In public-sector financings (PIF segment), one borrower with a lending volume totalling €7 million was returned to normal handling.

Problem loans increased by €109 million net during the reporting period. In the REF segment, financings totalling €178 million were transferred to the recovery management for non-performing loans. In contrast, a €47 million exposure was returned to normal handling. Further reductions totalling €2 million were due to partial redemptions, as well as to exchange rate fluctuations concerning loans denominated in pound sterling.

In the PIF segment, repayments of loans and advances covered by an export credit guarantee extended by the Federal Republic of Germany, including currency effects for financings extended in US dollars, led to a decline of €20 million.

Credit loss allowances and Provisions
Details on credit loss allowances and provisions – including their recognition and development – can be obtained from the notes.

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

In specific terms, there are opportunities if fewer loans in future are affected by a default in performance than is assumed as part of the risk quantification process. In future, opportunities may also result from a lower than assumed number of migrations to weaker rating classes.

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

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

Market Risk

Definition

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. Transactions entered into by pbb Group are mainly exposed to the following types of market risk:

- General interest rate risk (risk from changes in 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)
- Concentration risk (risk of additional losses due to a non-diversified portfolio mix)

Market Risk Strategy

pbb Group adheres to the following fundamental principles in relation to market risks in terms of the present value perspective and of the periodic perspective:

- Transactions may be conducted exclusively in financial instruments which have successfully passed the new product process, and for which market values are either observable or determinable via a model.
- All positions entered into are subject to daily monitoring, in terms of sensitivity, value-at-risk (VaR) and performance, which is independent from trading units.
- Interest rate risk in the banking book is identified, measured, managed and monitored using both a present value approach as well as in terms of net income for the period. In this context, the present value approach is the primary approach for interest rate risk management, supplemented by the monitoring of interest rate risk of quarterly net interest income. In addition, credit spread risks in the banking book (CSRBB) are included in the regular risk measurement, controlling and monitoring as well.

Market Risk Management Organisation
Positions with regard to Market risk are monitored by way of a present value approach by the RMC department, which is separated from trading in the structural organisation, right through to the Management Board. The Finance department monitors the interest rate risk for the period.

Market Risk Reports
RMC prepares detailed market risk reports for senior management and operational management purposes, on a daily basis. The daily market risk report, which is primarily addressed to the Management Board, includes:

> market risk value-at-risk (VaR) and VaR limit utilisations across all relevant levels of the portfolio structure,
> sensitivities of market risk factors at various levels of detail and monitoring of sensitivity triggers and
> a presentation of the economic performance measurement and the breakdown of the economic performance by individual risk factors.

pbb provides quarterly reports on changes in effects on income, and effects on accumulated other comprehensive income (recognised directly in equity), given predefined interest rate scenarios and assuming a dynamically changing balance sheet, to monitor interest rate risk for the period.

Market Risk Measurement and Limits
Market risk Value-at-Risk RMC determines VaR attributable to market risk, at an overall as well as partial portfolio level, on a daily basis, using a simulated model based on historical data. The VaR determination includes all positions exposed to market risks. The essential parameters of the market risk VaR model can be summarised as follows:

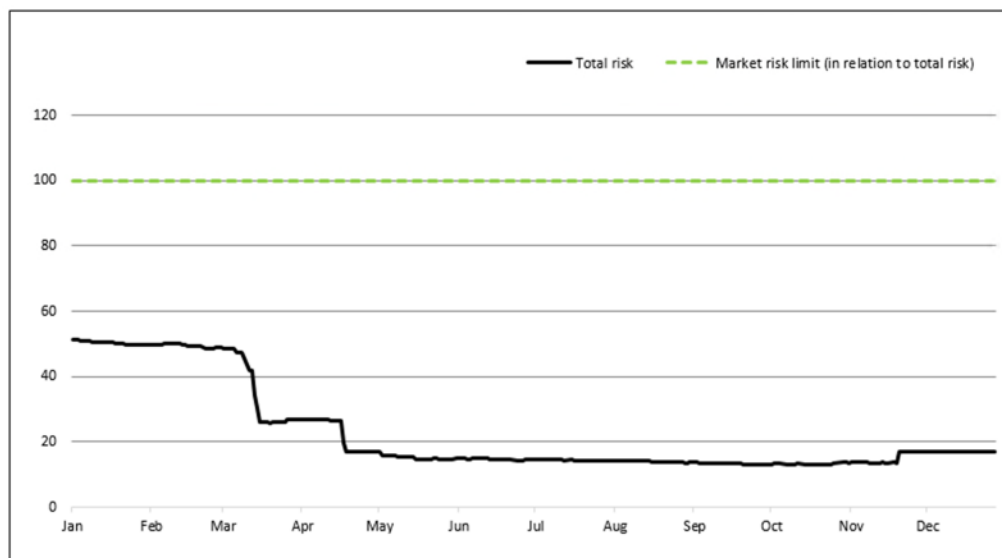
> The simulation model is based on a one-year market data history which is included in the simulation on an equally weighted basis.
> Individual types of market risk are aggregated to form a total VaR, which forms the basis of limit monitoring.
> For the purposes of daily operational risk management, Market risk VaR is determined using a holding period of one day and a 99% confidence interval.

As at 31 December 2021, market risk VaR amounted to €17 million, taking diversification effects between the individual market risk types into consideration (31 December 2020: €51 million). The decline in the market risk VaR was mainly due to lower credit spread risks, which were caused above all by declining credit spread market volatility in historical market data underlying the VaR model. Given that the VaR model is based on a one-year data history, market turbulence at the outset of the COVID-19 pandemic in the spring of 2020 was gradually removed from VaR calculations during the course of 2021. Accordingly, the total market risk VaR limit was €100 million throughout 2021 (in line with the level at the end of 2020).

The consolidated IRRBB VaR of all interest rate risk categories in the banking book (general interest rate risk, Tenor risks, cross-currency spread risks, option risks and volatility risks) amounted to €12 million as at year-end 2021 and CSRBB VaR amounted to €11 million. As well as limiting market risk VaR, specific limits have been monitored daily for IRRBB VaR (limit as at the 2021 year-end: €30 million) and CSRBB VaR (limit as at the 2021 year-end: €90 million).

There were no breaches of market risk VaR limits during the period under review. The following chart shows the development of market-risk-induced VaR, compared to the market risk VaR limit during the course of the year:

Market risk VaR
and market risk limit January to December 2021
in € million



The VaR assessment is complemented by additional tools, such as sensitivity analyses and stress testing.

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

Stress Testing Whilst VaR measures market risk in “normal” market conditions and does not provide a measure for potential maximum losses, internal economic stress scenarios are used to map market risk in difficult or even extreme economic framework conditions. pbb Group employs hypothetical and historical stress scenarios for key risk drivers on a monthly and quarterly basis, to determine the impact of strong to extreme changes in market data as well as assumptions regarding client behaviour on the economic present value.

In addition to internal economic stress scenarios, the external regulatory stress scenarios relating to the supervisory outlier test are calculated and analysed.

The Management Board of pbb and the executive bodies are informed about the results of stress scenarios on a regular basis. In connection with managing interest rate risk in the banking book (including credit spread risks), the changes in present value of selected internal and external stress scenarios have also been monitored through specific limits or triggers.

Back Testing The quality of the risk measurement methods in use is checked on an ongoing basis by comparing one-day VaR figures to the actual changes occurring in the portfolio's present value on a daily basis. pbb Group has adopted the Basel Capital Accord's "traffic light" system for the qualitative analysis of its risk model. For this purpose, the number of outliers detected in backtesting within a period of 250 trading days are counted. Two outliers were observed during the 250 trading days until the end of 2021; both were attributable in particular to relatively strong changes in interest rates, related to the ECB's monetary policy decisions in October 2021. The risk model employed by pbb Group therefore has "green" status, as defined in the "traffic light" system of the Basel Capital Accord.

Periodic interest rate risks pbb uses a dynamic model for measuring and monitoring period interest rate risks, thus simulating changes in future income statements and balance sheet developments, which will materialise if the balance sheet develops as planned, and under predefined interest rate scenarios. Measurement and monitoring of periodic interest rate risks was carried out at the end of each quarter, for a simulation horizon covering the following four quarters. Negative deviations from the base value were monitored, using a trigger of €60 million for effects on income, and a trigger of €100 million for effects on accumulated other comprehensive income (recognised directly in equity). Both triggers were not exceeded during the year under review.

Economic Capital for Market Risk The chapter "Internal Capital Adequacy Assessment Process (ICAAP)" provides details concerning the calculation as well as the quantification of economic capital for market risk.

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

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

Market Risk Management, Monitoring and Reduction

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

- management of positions maintained by the Treasury
- risk measurement and monitoring compliance with triggers and limits (independent from trading units) and
- escalation processes across all decision-making bodies, right through to the Management Board

Financial derivatives are mainly used for hedging purposes.

General Interest Rate Risk General interest rate risk (gap risk) amounted to €12 million as at year-end 2021 and was thus below the figure seen at year-end 2020 (€17 million).

Basis Risks Basis risks refer to tenor basis spread and cross-currency basis spread risks. Tenor basis spread risks (€1 million; 31 December 2020: €3 million) and cross-currency basis spread risks (€1 million; 31 December 2020: €2 million) were shown at the reporting date.

Volatility Risk Volatility risk amounted to €1 million as at end of December 2021 (end of 2020: €1 million).

Credit Spread Risk (CSRBB) The present value Credit spread risk reflects potential changes in the present value of exposures as a result of changes in the corresponding credit spread. The majority of credit spread risk is attributable to assets eligible as cover for Pfandbriefe. The Bank has risk measurement systems in place for calculating credit spread risk for all relevant exposures. The VaR limit applies to all credit spread risks for asset instruments at fair value through profit and loss (FVPL) or at fair value through other comprehensive income (FVOCI). In addition, the credit spread risks of those securities held as assets are measured at amortised cost.

The credit spread risk amounted to €11 million as at the end of December 2021 (year-end 2020: €48 million). As outlined above in the section Market risk Value at Risk, the decline in credit spread VaR was primarily due to lower credit spread market volatility, following market turbulence caused by the COVID-19 pandemic in the spring of 2020.

Foreign Currency **Risks** The present value of foreign currency risk amounted to €0.3 million as at end of 2021 (year-end 2020: €1 million).

Opportunities

As detailed above, the sensitivities result in value at risk: a possible future (economic) loss in the event of an unfavourable market development. The very same sensitivities may also result in economic gains, in the event of a positive market development. For instance, high credit spread sensitivities represent a risk as described above. In the event of a narrowing of the relevant credit spreads, these credit spread sensitivities will yield economic profits, constituting an opportunity.

Open interest rate risk exposures (from an economic perspective) may indeed be neutral or even income-enhancing for periodic interest rate risk; this is the case for medium- to long-term fixed-rate loans, for example.

IBOR reform

The implementation of the IBOR reform at pbb is discribed in the notes.

Liquidity and Funding Risk

Definition

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

Internal Liquidity Adequacy Assessment Process

In accordance with the Supervisory Review and Evaluation Process (SREP), pbb has conducted an Internal Liquidity Adequacy Assessment Process (ILAAP), which was examined and approved by the Management Board. The ILAAP should ascertain that all material liquidity and funding risks can be identified, measured and monitored, and that measures to prevent a liquidity shortage are taken in good time if required.

Liquidity Risk Strategy
The Management Board determines both the risk strategy as well as the risk appetite of pbb Group. The liquidity risk strategy is a key component of pbb Group's risk strategy. It is broken down into various modules (comprising various liquidity scenarios, given certain market conditions and stress parameters). This ensures that the Group's short- and medium-term funding is monitored and managed by means of a limit system. The limits are defined as part of the annual business planning process, approved by the Management Board.

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

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

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

The liquidity position resulting from the liquidity reserve as well as contractual and optional cash flows is measured in different scenarios, with three liquidity positions being projected on a daily basis. The projections assume:
- unchanged market and funding conditions (base scenario),
- a risk scenario (modified [historic] stress scenario) and
- liquidity stress ([historic] stress scenario).

For instance, the risk and the [historic] stress scenario simulate possible client behaviour in "stress situations". Historic time series are used to calculate 95% and 99% quantiles.

Liquidity risk triggers (early warning indicators) have been defined for a 24-month horizon in the base scenario. Limits in the risk and the [historic] stress scenario are applicable for a six- respectively three-month horizon.

The limit system consists of:
- limits relating to the liquidity stress profile (risk scenario and [historic] stress scenario); and
- triggers for the base scenario as well as the six-month bucket of [historic] stress-scenario.

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

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

The scenarios are reported to the Management Board, as well as to external bodies such as the JST of ECB and national competent authorities responsible for pbb.

Liquidity Risk Monitoring and Management
Monitoring of liquidity risks is ascertained through daily reporting of the liquidity situation and a defined escalation process. A liquidity emergency plan has also been adopted in this context; this plan forms the functional and organisational framework for the handling of any liquidity shortages. The liquidity emergency plan is part of the pbb Recovery Plan and updated at least annually.

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

Hedging and Reduction of Liquidity Risk
A risk tolerance system is in place, to limit liquidity risk. Risk tolerance is integrated in the liquidity management process by means of triggers (limit system), in order to safeguard a “survival period” for pbb Group in stressed conditions.

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

Development of pbb Group’s Risk Position
The cumulative liquidity position (liquid assets plus projected net cash flows) determined as part of the liquidity risk measurement process as at 31 December 2021 amounted to €4.6 billion for a 12-month horizon in the base scenario – a €1.1 billion decrease compared to the previous year (based on the same projection horizon). As at 31 December 2021, the cumulative liquidity position for a six-month horizon amounted to €1.8 billion in the risk scenario (31 December 2020: €2.8 billion). The cumulative liquidity position in the stress scenario for a six-month horizon amounted to €0.6 billion as of 31 December 2021 (31 December 2020: €1.4 billion).

Regulatory Liquidity Coverage Requirements (Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR))
The Liquidity Coverage Ratio (LCR) is calculated using the ratio of the liquidity buffer (liquid assets) to net liquidity outflows during a stress period of 30 days. A minimum LCR of 100% is mandatory in regulatory liquidity reporting.

The levels determined for pbb Group during 2021 were at any time clearly in excess of 100%. The Liquidity Coverage Ratio as at 31 December 2021 was 227%.

A NSFR ratio of 100% must be maintained since 30 June 2021. The NSFR shows the ratio of available stable funding (ASF) and required stable funding (RSF) and is designed to secure the medium and long-term structural liquidity.

The figures determined for pbb Group during 2021 were clearly above the ratio required under the regulatory regime. As at 31 December 2021, the NSFR was 118%.

Funding Markets
Please refer to the chapter Development in financial position in the Report on the Economic position, for details concerning developments on funding markets and changes in pbb's funding volumes during the period under review.

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

- further developments in the context of the European financial crisis, COVID-19 pandemic and possible effects on the real economy;
- potential impact of ESG factors on credit spreads and funding opportunities;
- future developments of haircuts applied to securities for repo funding on the market, and with central banks;
- possible additional collateral requirements as a result of changing market parameters (such as interest rates and foreign exchange rates);
- developments in requirements for hedges;
- changed requirements from rating agencies regarding the necessary over-collateralisation in the cover pools;
- refinancing requirements of real estate investors

Funding Risk
The chapter “Internal Capital Adequacy Assessment Process (ICAAP)” provides details concerning funding risk as part of business and strategic risk.

Market Liquidity Risk
For financial instruments, quantitative details for a better assessment of market liquidity risk can be obtained from the presentation of the three levels of the fair value hierarchy in the notes. Generally, there is no intention to sell holdings measured at amortised cost for liquidity management purposes, as liquidity for these holdings can mainly be generated by way of including them in the cover pool, using the funding opportunities provided by the central bank, or using them in repo transactions. Market liquidity risk is included in the internal risk management process as part of market risk.

Opportunities
pbb Group's cumulative liquidity position of € 4.6 billion in the base scenario over a 12-month horizon, which is detailed in the section “Development of pbb Group's Risk Position”, as at 31 December 2021 provides the Group with scope for a flexible response, particularly with regard to possible new business.

If the external factors specified in the section “Forecast Liquidity Requirement” were to develop favourably for pbb Group, this would result in a lower future liquidity requirement.

Operational Risk

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

Strategy for Operational Risk
The priority of pbb Group's operational risk management is to prevent operational risk events and to meet the defined risk appetite. Key cornerstones of this strategy are the early recognition, systematic recording and assessment of operational risk, taking measures for risk mitigation as well as an early management reporting. The operational risk management strategy is adopted by the Management Board on an annual basis as part of the overall risk strategy. The risk strategy describes the pbb Group's risk management strategy as well as the risk appetite regarding operational risk.

Organisation of Operational Risk Management
A consistent Group-wide framework is in place, governing responsibilities for managing operational risk based on the principle of the three lines of defence. In this context, heads of divisions – as risk owners –are responsible for managing operational risk, and for implementing risk-mitigating measures within the various business units (first line of defence). Compliance, Corporate Office, Finance (Outsourcing Risk) and RMC essentially comprise the second line of defence. Within RMC, the Operational Risk unit is responsible for uniform procedures and methods for identifying, assessing, quantifying, monitoring and reporting on operational risk. Internal Audit constitutes the third line of defence.

Risk Reports, Monitoring and Management of Operational Risk
Essential components of operational risk management are as follows: recording and analysing internal and external loss data, operational risk self-assessments (ORSA), scenario-based analysis and stress testing.A structured and central reporting system is used to inform Management Board and division heads, the Risk Committee and other supervisory bodies concerning risk events on a regular, timely and comprehensive basis. Reports are prepared both ad-hoc (where material risk events are escalated) as well as on a monthly basis (Group Risk Report), on a quarterly (Key Risk Indicator Report) or annual (Annual OpRisk Report) basis. Operational risk reporting encompasses relevant loss events, top risk issues, development of risk indicators, as well as the results from ORSA and scenario analyses.

Management of ICT systems risk and outsourcing risk is fully integrated into operational risk management, and thus into the pbb's risk and compliance structure. Risk management for ICT systems risk generally applies at process level. The annual protection requirement analysis, the quarterly reporting of relevant information and metrics such as the key performance indicators (KPIs) as well as the IT security management, are all essential elements. Key elements of outsourcing risk management include the risk assessment of all outsourcing relationships (which is updated at least once a year), ongoing coverage by the Accountable Person for outsourcing, monitoring using suitable key risk indicators, and quarterly reporting to the Outsourcing Committee.

pbb Group uses models to quantify risks within the individual risk types, and to measure the fair value of financial instruments, which leads to model risks potentially incurred as a result of models which are incorrectly designed, implemented, or applied. To ensure that model risks are as low as possible, pbb has established a framework for model risk management.

Management of legal risk is aimed primarily at the prevention of losses which could be incurred if business activities of pbb Group are not documented with legal certainty. Structuring business activities in a manner that ensures legal certainty also serves to protect the integrity and reputation of pbb Group. In order to achieve this goal, the Legal department provides the entire pbb Group with a comprehensive, forward-looking business- and solution-oriented consultancy service. The Legal department assists business divisions by monitoring developments in the relevant legislation and case law, and reviews the effects of such developments on new and existing business. The results are discussed with the responsible divisions and/or in the Legal and Regulatory Risk Committee. The Legal Policy describes the roles and responsibilities of the Legal department within pbb Group and serves as a guideline for employees in the Legal department. Furthermore, the Legal department gives an assessment towards the Finance de-

partment whether provisions for pending legal cases have to be recognised. Moreover, the OpRisk loss database captures losses and provisions from legal risks which need to be seen in conjunction with operational risk events. Overall, legal risks are taken into consideration in the existing operational risk management framework, and are an integral part of, inter alia, the Key Risk Indicator Report, the Operational Risk Self-Assessment (ORSA), the analysis and reporting of risk events, as well as for determining economic capital.

ESG risks included in operational risk are also integrated into operational risk management.

Risk Measurement
Please refer to the chapter "Internal Capital Adequacy Assessment Process (ICAAP)" for further details on the quantification of operational risk including legal risks as well as the calculation results of the economic capital for operational risk.

In line with the Standardised Approach according to article 317 et seq. of CRR, the own funds requirement for operational risk, which is calculated at the end of each year, was € 74 million as at 31 December 2021 (31 December 2020: € 70 million).

Operational Risks Profile of pbb Group
pbb Group suffered a financial loss of €0.3 million from operational risks during 2021 (2020: €1 million). pbb assesses its operational risk profile as stable.

Opportunities
pbb Group aims to reduce potential operational risk to the extent possible, through continuous development of its operational risk framework and the ongoing optimisation of processes.

Business and strategic risk

Within pbb Group, business and strategic risk is defined as the risk of negative deviations of income and expenses from the planned figures – as a result of strategic decisions, false assumptions or unexpected changes in the external framework conditions, to the extent that such deviations are not covered by other risk types, such as market risk, credit risk or operational risk. Please refer to the chapter "Internal Capital Adequacy Assessment Process (ICAAP)" for further details on the quantification as well as the calculation results of the economic capital of business and strategic risk.

Property Risk

Property risk is defined as potential negative changes in the value of the Company's own property portfolio, due to a deterioration of the general real estate situation or a negative change of the specific characteristics of the individual property – caused by the property being vacant, changed usage options, building damages, investment requirements, changes to the legal framework or economic environment as well as other factors.

As at 31 December 2021 as well as at 31 December 2020, pbb did not hold any own properties.

Pension risk

Pension risk is defined as the risk of incurring additional expenses due to insufficient capitalisation of pension obligations from defined benefit plans. It is considered within the scope of ICAAP. Pension risk is included in the market risk, for details, please refer to the chapter "Internal Capital Adequacy Assessment Process (ICAAP)".

Central Counterparty (CCP) risk

Central counterparty (CCP) risk defines the risk of losses caused by liability claims of the CCP against pbb, for example, in the event of the default of a clearing member. The risk is taken into account in the economic perspective, using a buffer in the available financial resources, and in the normative perspective when calculating risk-weighted assets.

Environmental, Social and Governance (ESG) risk

Definition
In accordance with the EBA Report on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms (EBA/REP/2021/18) and the ECB 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 risks include the following components:

- **Environmental risks:** pbb uses the concept of 'environmental risks' as an umbrella term for both climate and environmental risks. Climate and environmental risks refer to risks of losses and negative impacts due to climate change and the destruction of the environment. Climate change is generally understood as being the change to the global climate caused by humans. Consequences of climate change include global warming (higher annual average temperature) as well as increased climate variability and extreme weather. The general understanding is that climate and environmental risks comprise the following two main risk drivers:
  - Physical risk: Physical risk refers to the financial impact of a changing climate. These impacts include more frequent extreme weather events and gradual changes in the climate, as well as environmental destruction (e.g. in the form of air and water pollution, land contamination, water stress, biodiversity loss and deforestation). A physical risk is considered to be acute if it materialises due to extreme events, such as drought, flooding or storms. If it is the result of gradual changes (such as rising temperatures, rising sea levels, water stress, biodiversity loss, changes in the use of land, destruction of natural habitats and resource scarcity), it is classified as chronic. Impacts can occur directly (e.g. as physical loss or damage or in the form of lower productivity) or indirectly, e.g. as a result of subsequent events such as supply chain disruption.
  - Transition risk: Transition risk describes financial losses that institutions can incur, directly or indirectly, as a result of the process of adjustment leading to a lower-carbon and more environmentally sustainable economy. This risk could materialise, for example, due to political measures adopted at very short notice to protect the climate and the environment, due to technical progress or due to changes in market sentiment and preferences.

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

Identifying and accounting for ESG risk
pbb Group considers risks emanating from ESG components taking an overall view, since the respective risk factors have an impact on other types of risk. ESG risk is classified overall as being material.

In order to ensure that ESG risks are given adequate consideration in the Bank's risk management processes, an identification and assessment process for ESG risk drivers has been established as a firm component of the annual risk inventory. Identifying and describing the possible transmission channels of potential ESG risk factors revealed the extent to which a company's economic and financial activities are affected (financial materiality/outside-in), or how a company's activities impact ESG factors (environmental and social materiality/inside-out) and in what time frame.

Overall, risk factors have been identified for environmental, social and governance aspects. These ESG risk factors have an impact on counterparty credit risk, operational risk, including potential reputational and liability risks, as well as business and strategic risk. No significant impact on market, liquidity or funding risk was identified. The Bank is working on the full inclusion of ESG risk factors in the risk management tools for all affected risk types, including monitoring, reporting and quantification, as well as in the stress tests and scenario analyses.

pbb Group has commenced analysing and assessing parts of its loan book – as a start – in terms of environmental criteria. The Group plans to review this analysis and valuation process at least once a year, extending it as appropriate, and to establish a standard process in this respect.

Taking the risks resulting from 'E', 'S' and 'G' into account in terms of the ICAAP in particular, these are currently being incorporated via other types of risk (counterparty credit risk, business and strategic risk, market risk, operational risk). The model-based assessment is to be continuously improved and completed over the next few years. The aim is to have completed these activities by 2023.

Monitoring and managing ESG risk
pbb aims to consider sustainability aspects within all its business activities, and to minimise the risk of negative consequences due to ESG risks.

In order to ensure even better compliance in this respect, pbb's entire Management Board appointed a specialist ESG Committee in July 2021, which addresses ESG aspects and ESG risks within the pbb Group. The Management Board also appointed an ESG programme management team in July 2021, which is responsible for supporting the ESG Committee and preparing the resolutions to be passed by the ESG Committee.

Specific risk indicators have been defined and assigned to the individual components for monitoring the various aspects of the Group's own ESG risk. Based on a traffic light system, amber and red thresholds have been defined for these risk indicators. Risk indicator reporting is performed within the scope of the Key Risk Indicator (KRI) report for non-financial risks in the Risk Committee, to the Management Board and to the division heads on a quarterly basis. Both the ESG risk indicators and the internal targets for the various aspects of ESG risk are continuously developed, enhanced and specified.

pbb Group manages ESG risks in line with the Three Lines of Defence ("3LoD") principle, whereby risk owners in the various divisions which are particularly close to clients or the general public (Sales, PAV, CRM, Communications, Finance, Treasury, and the Corporate Office) form the first line of defence. The second line of defence comprises Risk Management & Control and Compliance, together with Legal, Human Resources, and IT. Group Internal Audit (GIA) is the third line of defence.

Opportunities

ESG risks generally also offer potential opportunities for pbb, related to sector-specific aspects – especially related to the offering of sustainable financing solutions ("green loans") as well as the issue of green bonds. Sustainable financing solutions reduce the probability of loan defaults, increase the value of the collateral furnished and prevent potential reputational damage. Client orientation and internal governance are further fundamental success factors for pbb Group in order to secure the financing portfolio, and give the Bank the opportunity to set itself apart from its peers, in positive terms, in a direct comparison. Moreover, the qualifications and satisfaction of our employees are the main foundation for the quality of their work, and thus for the Company's potential.

INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS (ICAAP)

Pursuant to section 91 (2) of the German Public Limited Companies Act (Aktiengesetz – "AktG") and section 25a (1) of the German Banking Act (Kreditwesengesetz – "KWG"), pbb Group is obliged to establish appropriate and effective internal procedures in order to ensure the Bank's risk-bearing capacity at all times. The Internal Capital Adequacy Assessment Process (ICAAP) is subject to regulatory review (within the framework of the SREP); it complements the regulatory procedures under Pillar 1 of the Basel III framework, as laid down in the CRR and the CRD V.

Pursuant to the „ECB Guide to the internal capital adequacy assessment process (ICAAP)", published in November 2018, regulatory authorities expect banks to apply two supplementary ICAAP perspectives, one being normative and the other being economic. In line with current ICAAP methodology, the capital adequacy assessment is evaluated from a normative as well as from an economic perspective. Both perspectives are aimed at the sustainability of the business and capital planning, and on the long-term viability of the pbb Group.

The normative perspective is geared towards securing the regulatory and supervisory requirements for capital and liquidity over several years. Particular focus is placed on forward-looking compliance with supervisory capital ratio requirements under expected and adverse conditions. The normative perspective also takes into account both the cross-institutional capital ratios required pursuant to the CRR and the bank-specific minimum ratios for own funds according to the ECB's SREP decision. Capital-related regulatory and legal requirements comprise the CET1 ratio, tier 1 ratio, own funds ratio, Leverage Ratio, as well as rules concerning MREL (Minimum Requirements on Own Funds and Eligible Liabilities) and large loan exposure limits.

The economic perspective is an additional, parallel management approach on an equal footing that monitors capital on an ongoing basis, with reports submitted on a monthly basis. It aims to safeguard the economic viability of the institution, and is therefore geared towards maintaining the institution's net asset value. For this purpose, all material economic risks are viewed from a present value perspective, quantified as far as possible using models, and aggregated to economic capital. Economic capital is defined as the capital required to cover the financial risks, taking into account a confidence level of 99.9% over a one-year horizon. It is calculated for all relevant types of risk, and aggregated to form total economic capital (after diversification effects). The capital available to cover total risk is calculated and compared to economic capital.

Risks identified in the risk inventory as higher-level risks having an impact on capital and income - these are market risk, credit risk, business and strategic risk, operational risk and property risk - are included in the ICAAP, using models or other methods to quantify the economic capital of these risk types. Within these types of risk, there are additional material sub-risks on a granular level that were taken into account in the ICAAP as other risks during the period under review. Extension risk, settlement risk and realisation risk for defaulted loans are combined for this purpose. Funding risk is included in business and strategic risk.

Over and above the risk-bearing capacity analysis, the ICAAP comprises additional management tools, including a system of limits and early-warning thresholds, as well as a comprehensive monthly monitoring and reporting process. Moreover, key indicators selected within the scope of base and stress scenarios are projected over a period of up to three years, with limits and early-warning thresholds also assigned to these figures. Limit compliance, in combination with a defined escalation process, supports the continuous safeguarding of an appropriate capitalisation.

The results of the ICAAP and of the stress tests are regularly presented to the Management Board and the Risk Committee. The content of the risk-bearing capacity analysis are discussed there – if necessary, management measures are defined.

The methods of calculating economic capital for the individual risk types, as well as risk indicators as at the reporting date, are described in greater detail in the following sub-sections, and in the chapter “Result of Risk-bearing Capacity Analysis”.

Quantification of economic capital for individual risk types

For internal assessment of the Internal Capital Adequacy Assessment Process in line with the economic perspective, economic capital for quantifiable risks is determined using models or scenario analyses, and aggregated into overall bank risk using a mathematical/statistical approach, taking specific correlations between market and counterparty credit risks into account. Thereby risks are calculated for a one-year period, using a confidence level of 99.9%.

The methods of calculating economic capital for the individual material risk types for 2021 are explained below.

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

Credit risk reported comprises default and migration risk, transfer and conversion risk, as well as concentration risk. Certain elements of counterparty credit risk, such as the realisation risk for defaulted clients, settlement risk, extension risk, and model risk are not reported directly as part of counterparty credit risk, but are regularly updated, constituting a component of overall risk as ‘other risks’ or as ‘model risk’, and disclosed separately.

Economic capital for Market Risk (including Pension Risk)
The purpose of calculating economic capital for market risk is to identify potential financial losses resulting from price changes affecting all positions. For this purpose, potential non-systematic losses, derived from historical time series of certain influencing (risk) factors such as interest rates, exchange rates or credit spreads are derived from a historical period going back to 1 July 2007. The historical observation period for risk factors underlying market risk calculations therefore comprises more than ten years, ensuring that adverse economic phases for pbb are adequately taken into account, and captured by the model. Ultimately, using a simulation procedure and applying sensitivities of financial instruments to risk factors, the annual loss distribution of portfolio market value is determined, which allows to determine economic capital at the set confidence level.

Since the beginning of August 2021, the ICAAP has reflected pension risk directly in economic capital for market risk; previously, this was mapped as ‘other risk’, as a component of overall risk.

Economic capital for Operational Risk
Within the framework of the ICAAP, operational risk is quantified using the so-called loss distribution approach (LDA), whereby distributions for damage amounts and frequency are determined individually, using internal loss data from the loss database. External and scenario-based data is also included in the modelling approach. The full loss distribution is generated using a Monte Carlo simulation technique; diversification effects between the various sub-types of risk and modelling categories are considered. Since the beginning of August 2021, the ICAAP has reflected pension risk directly in economic capital for market risk; previously, this was mapped as ‘other risk’, as a component of overall risk. Furthermore, it is ensured that the economic capital figure calculated does not fall short of a specific floor. This floor is in line with the adjusted regulatory capital determined in accordance with the standardised approach pursuant to the CRR. Sub-types of operational risk which can only be partially quantified, or which cannot be quantified at all, such as for instance reputation risk, are covered by way of a capital buffer.

Economic capital for business and strategic risk
The quantification of business and strategic risk in the ICAAP is based on a mixed approach, consisting of a Monte Carlo simulation of net interest income and a scenario analysis for other items in the income statement. When deriving available financial resources, pbb Group does not consider any planned profits. This way, a buffer at least equivalent to the amount of positive projected results is reserved for business and strategic risk, since this type of risk is defined as the risk of potential negative deviations from planned income and expenses. In case higher than planned gains are calculated within the scope of quantifying business and strategic risk, the value of business and strategic risk exceeding the planned annual profit of pbb Group is reported as a risk amount.

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

Result of Risk-bearing Capacity Analysis

Normative perspective
For a detailed description of the regulatory indicators measured as at the reporting date (CET1 ratio, tier 1 ratio, own funds ratio, MREL and Leverage Ratio), please refer to the chapter “Key regulatory capital ratios”. The requirements for regulatory capital ratios were satisfied at any time throughout the reporting period. The future-oriented medium-term analysis of key capital ratios – as required by regulators – did not show any critical values according to the limit system, neither in the base scenario nor in the stress scenarios.

Economic perspective

in € million	**31.12.2021**	**31.12.2020**	Change
Credit risk	1,108	1,149	-41
Thereof Real Estate Finance	511	667	-156
Thereof Public Investment Finance	100	68	32
Thereof Value Portfolio	484	405	79
Thereof Consolidation & Adjustments	14	9	5
Market risk	665	652	13
Operational risk	97	98	-1
Business and strategic risk	-	-	-
Property risk	-	-	-
Model risk	19	73	-54
Other risks	47	62	-15
Total before diversification effects	**1,937**	**2,034**	**-97**
Total after diversification effects	**1,812**	**1,850**	**-38**
Available financial resources before net hidden losses	3,150	3,065	85
Net hidden losses	-	-	-
Available financial resources	**3,150**	**3,065**	**85**
Excess capital	1,338	1,215	123
Capital Adequacy ratio in %	174	166	8

In the economic perspective, aggregate risk after diversification effects declined in the period under review, driven especially by lower model and counterparty credit risks. The decline in model risk was driven in particular by further developments of the factor model, as well as by regular modifications to parameters. These adjustments were also the main drivers for the changes in counterparty credit risk; they led to a risk reduction in REF, with an increase in VP, PIF, and C&A. Economic capital for operational risk is determined at least annually and has seen a minor decline, resulting from the update of data used in the model. Since pbb still continues to hold no properties during the period under review, business and strategic risk is reported at nil, as the calculated value of the business and strategic risk is covered by the initial buffer, which is at least equal to the planned profits, and is reviewed regularly. Compared to the

previous year, diversification effects declined due to a more conservative approach, and to an update of parameters.

This is offset by available financial resources, which increased during the period under review, despite the dividend payments in May and December 2021. Compared to year-end 2020, excess capital rose, whilst the internal capital adequacy ratio (defined as the ratio of available financial resources to diversified economic capital) also increased. Overall, the Bank's risk-bearing capacity at the reporting date was demonstrated for the economic perspective as well.

Should credit spreads widen or credit ratings of European public debtors worsen, owing to economic or political developments, both a corresponding increase in credit risk and a reduction in available financial resources (given an increase in net hidden losses and lower equity) are to be expected, notwithstanding any countermeasures taken.

Opportunities

A quick economic recovery would lead to tightening credit spreads and generally improved ratings. This would strengthen available financial resources further and hence, excess coverage in the ICAAP.

Stress testing

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

As part of an integrated approach, the impact of macroeconomic stress scenarios on the material metrics of the normative and economic perspectives was calculated for a horizon of several years during the period under review. Stress scenarios were developed in the wake of the COVID-19 pandemic, and analyses carried out how these scenarios affect the Bank. Given the highly dynamic development, these scenarios are subject to a considerable uncertainty. In addition, a climate-specific scenario was developed and calculated in 2021, based on the reference scenario “disorderly transition“ developed by the Network for Greening the Financial System (“NGFS”).

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

SREP

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

Based on the results of the analysis as well as using benchmark comparison, the ECB may impose minimum capitalisation or liquidity requirements, over and above existing regulatory requirements. As a material result of the SREP, pbb Group was required to maintain a minimum CET1 ratio of 9.5% (excluding the countercyclical capital buffer, which varies according to country, and hence, for specific portfolios – as at 31 December 2020, it stood at 0.019%) since 2020. This capital requirement is based on the final Basel III requirements (excluding transitional rules) 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%). Furthermore, pbb Group

had to fulfil a total capital requirement of 13.0% since 2020 (excluding the countercyclical capital buffer, which varies according to country, and hence, for specific portfolios). It is based on the final Basel III requirements (excluding transitional rules) and comprises a Pillar 1 minimum requirement (8.0%), a Pillar 2 capital requirement (2.5%) and the capital conservation buffer (2.5%). As of 12 March 2020, the ECB adjusted SREP requirements for banks under its supervision: they are since then required to hold approximately 1.4% (56.25%) of the pillar 2 capital requirement of 2.5% in the form of CET1 capital, and 1.9% (75%) as Tier 1 capital. As a result, pbb's SREP requirement was reduced to approximately 8.4% CET1 (excluding the countercyclical capital buffer, which varies according to country, and hence, for specific portfolios). The total capital requirement has remained unchanged, at 13%. Both requirements, the Group complied with at all times during the year under review.

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

The Pillar 2 capital requirement, as notified to pbb Group in ECB's SREP letter dated 2 February 2022 and effective as of 1 March 2022, remains unchanged at 2.5%. Hence, the other minimum CET1 and total capital ratios as stated above remain valid for pbb Group.

Key Regulatory Capital Ratios

Together with the Capital Requirements Directive (CRD), the CRR forms the basis for determining regulatory capital requirements. Besides the minimum capital ratios, these regulations also govern requirements for the eligibility of capital instruments as well as the mandatory determination of regulatory capital, in line with the accounting standards used. For this reason, pbb has determined its regulatory capital ratios based on IFRS.

With the approval of the ECB, pbb Group uses the waiver rule pursuant to Article 7 (3) of the CRR; the Group is therefore exempt from determining own funds requirements at a single-entity level.

pbb Group applies the Advanced Internal Rating Based Approach (Advanced IRBA) and the Standardised Approach (STA) to determine regulatory capital requirements.

The requirements for regulatory capital ratios were satisfied at any time throughout the reporting period.

Own Funds

in € million	31.12.2021[1)]	31.12.2020[2)]
CET1	2,875	2,854
Additional Tier 1	298	298
Tier 1	3,173	3,152
Tier 2	593	646
Own Funds	**3,766**	**3,798**

[1)] After confirmation of the 2021 financial statements, less AT1-coupon and less proposed dividend (subject to approval by the Annual General Meeting).
[2)] After confirmation of the 2020 financial statements, without allocation to retained earnings.

Risk-weighted assets (RWA)

in € million	31.12.2021	31.12.2020
Market risks	59	98
Thereof: interest rate risks	-	-
Thereof: foreign exchange risks	59	98
Operational risks	922	881
Credit risks	15,534	16,528
Thereof CVA Charge	206	181
Other RWA	277	237
RWA total	**16,792**	**17,744**

The increase in other RWA in the year under review contains a deferred tax effect, which is not attributable to temporary differences.

Capital ratios

in %	31.12.2021[1)]	31.12.2020[2)]
CET1 ratio	17.1	16.1
Tier 1 ratio	18.9	17.8
Own Funds ratio	22.4	21.4

[1)] After confirmation of the 2021 financial statements, less AT1-coupon and less proposed dividend (subject to approval by the Annual General Meeting).
[2)] After confirmation of the 2020 financial statements, without allocation to retained earnings.

Leverage ratio

in %	31.12.2021[1)]	31.12.2020[2)]
Leverage ratio	6.0	6.0

[1)] After confirmation of the 2021 financial statements, less AT1-coupon and less proposed dividend (subject to approval by the Annual General Meeting).
[2)] After confirmation of the 2020 financial statements, without allocation to retained earnings.

MREL (Minimum Requirements for Own Funds and Eligible Liabilities)
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 through the German Act on Restructuring and Resolution (Sanierungs- und Abwicklungsgesetz – "SAG")), institutions are required to maintain, in addition to regulatory capital, 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 bail-inable and thus excluded from conversion. The exact level of the MREL

ratio is determined by regulators individually for each institution concerned. pbb Group is aiming to maintain an MREL ratio of at least 8% in relation to total liabilities and own funds (TLOF), and – as in the previous year – exceeded this requirement significantly in the year under review.

Recovery and Resolution Planning

Recovery and Resolution Planning
A uniform bank resolution regime is a key component of European Banking Union. With the BRRD, which has harmonised recovery and resolution tools, and with the Regulation setting up the Single Resolution Mechanism ("SRM"), the legal basis therefore was established. In Germany, the BRRD was implemented through the German Act on Restructuring and Resolution (SAG).

Recovery Planning
Pursuant to section 12 (1) of the SAG, every institution [subject to the Act] must prepare a recovery plan and submit it to the supervisory authorities. pbb Group's Recovery Plan is based on the Bank's accounting and financial reporting in accordance with IFRS; it takes numerous directives and regulations into account, including the BRRD, together with related directives and technical standards published by the European Banking Authority (EBA), the SRM, as well as the SAG. The objective of the Recovery Plan is to set out the measures that the institution may use in order to secure or restore its financial stability in the event of its assets, financial position and earnings materially deteriorating, in a theoretical crisis event, where such deterioration may threaten the institution's continued existence. A possible impact upon the financial sector as a whole is also considered in this context.

The monitoring of recovery indicators, as well as recovery governance, are enshrined within pbb Group's organisational as well as operating structures; they form part of the Bank's overall management.

The Recovery Plan is updated at least once a year, or on an event-driven basis, taking applicable regulatory requirements into account.

Resolution Planning
In contrast to the Recovery Plan, the Wind-down Plan is conceived by the resolution authorities – as opposed to the Bank. In this respect, in close coordination with the EU Single Resolution Board (SRB) in Brussels and the national resolution authority (the German Federal Financial Supervisory Authority – "BaFin"), pbb supports these authorities in preparing the Wind-down Plan. The objective of the Wind-down Plan is to ensure pbb's capacity to enter into wind-down proceedings.

INTERNAL CONTROL SYSTEM AND RISK MANAGEMENT SYSTEM RELEVANT FOR THE CON-SOLIDATED FINANCIAL REPORTING PROCESS

Concept

The risk management system relevant for the consolidated financial reporting process comprise the principles, processes and measures used to ensure the effectiveness and efficiency of financial reporting, as well as to ensure compliance with statutory provisions. Risks that may prevent this overall objective from being achieved are identified and assessed; any risks identified are limited and their effect on the financial statements and their appropriate presentation are reviewed. The internal control system (ICS) is an integral part of the risk management system. The implementation of controls is intended to ensure, with sufficient certainty and despite the risks identified, that the financial statements are prepared in compliance with the regulations. However, absolute certainty regarding the achievement of the objectives cannot be given completely.

The ICS is fully integrated into the pbb Group's organizational structure and workflows. This also includes comprehensive reporting to the Management Board and Supervisory Board.

pbb's Management Board prepares Consolidated Financial Statements and a Combined Management Report. In connection with the requirement to establish a Group-wide ICS, the whole Management Board of pbb is also responsible for the form – i.e. the concept, implementation, maintenance and monitoring – of an appropriate and effective ICS. All strategies are decided on by the whole Management Board on the basis of recommendations made by the CEO/CFO.

The Supervisory Board is tasked with advising and monitoring the Management Board. It also has audit and reporting-related obligations. pbb's Supervisory Board established an Audit and Digitalisation Committee to support its activities in this area. In accordance with section 100 (5) of the Aktiengesetz (AktG – German Stock Corporation Act), at least one member of the Supervisory Board must have expertise in accounting and another membermust have experience in auditing. These requirements are met.

Group Internal Audit supports the Management Board and the Supervisory Board in its control function by performing independent audits.

At 31 December 2021, the CEO/CFO was responsible for Communications, Corporate Office/Corporate Development, Digitalisation, Finance, Group Internal Audit, Human Resources and Legal. The Finance division comprises the departments Accounting, Financial Reporting, Procurement Services & Corporate Controlling, Regulatory Reporting and Tax as well as the team Data Governance. The Finance division prepares the Consolidated Financial Statements in accordance with IFRS as applicable in the EU and provides the capital market information relevant to accounting. pbb Group companies and branches prepare their financial statements in accordance with the relevant local legal requirements. These financial statements are standardised around uniform Group accounting policies in accordance with IFRS for the purposes of Group financial reporting. Each entity included in the Consolidated Financial Statements reports its statement of financial position, income statement, and notes to a central department in Group Accounting via the consolidation software. In Group Accounting the data are validated, analysed and consolidated. For the preparation of the unconsolidated annual financial statements, the accounting policies in accordance with the German Commercial Code (Handelsgesetzbuch, HGB) applied for the financial statements of the corporate headquarters and the branch offices, and are harmonised on the basis of a HGB accounting manual.

The GFC issues recommendations to the Management Board. These include, among other things, establishing and monitoring the accounting and reporting policies as well as workflows for all units and segments. The GFC is composed of the members of the Management Board and the managers of the Finance, Risk Management & Control and Treasury divisions.

With respect to workflows, the ICS is based on the objective of largely standardised the processes and software. Core activities and processes are governed by policies, according to which the four eye principle must be applied in all material transactions. Data and IT systems are protected against unauthorised access. In addition, certain relevant information is only made available to those employees who need it for their work. Where necessary, results are agreed at Group level.

Implementation

In order to strengthen and further expand the ICS, pbb Group has, among other things, implemented the Control Attestation Process (CAP). As part of this process, all divisions define key controls for managing their significant risks. The key controls are reviewed and confirmed in a regular confirmation process by the divisions. In addition, the controls are reviewed in a downstream process by the Compliance and Group Internal Audit divisions.

There is a clear separation of functions within the Finance division. The GFC and other committees, as well as divisional meetings serve as overarching links between the different tasks. In addition, executing, accounting and administrative activities such as payment transfers and payment entries are clearly separated or subject to the four eye principle. Furthermore, the units included in the Consolidated Financial Statements report their data to a central Group department, ensuring the subsequent processing in a uniform manner.

Systems-based and non-systems-based risk management measures and internal controls are used within the workflows. At the systems level, standard software is used as far as possible to post, reconcile, check and report data so as to avoid errors. The same applies to consolidation, which is performed using standard market software. The consolidation software supports the reconciliation of intragroup transactions at a technical level in a clearly defined process, ensuring that these transactions are eliminated correctly and in full. Data from the entities included in the Consolidated Financial Statements are reported using a uniform, standardised chart of accounts. Automated plausibility checks are performed on the data reported by subsidiaries for consolidation purposes, for example. The largest part of assets and liabilities is held by the parent company pbb. The balances carried forward are checked by the system. Extensive validation routines are also anchored in the software that is also widely used on the market to prepare the annual report and the unconsolidated financial statements. To prevent data loss, the data in the consolidation software are backed up on a daily basis and the backup is stored on tape. As a general rule, pbb Group’s software is protected against unauthorised access by a clearly defined administration concept and authorisation rules.

Alongside the systems-based measures, pbb Group has implemented manual and non-systemsbased processes. For example, the correctness and completeness of the data reported are checked using a standardised process involving variance analyses over time, among other things. In addition, the consolidated statement of financial position and the consolidated income statement are determined on a monthly basis. Projections and forecasts are also drawn up. As part of another control mechanism, the exposures involving financial instruments – and hence the vast majority of the statement of financial position – are broken down to individual transaction level based on sub-ledgers, and are reconciled with the consolidated figures. In the income statement, for example, net interest income and net fee and commission income are tracked within the context of the earnings transparency analysis, and the result from fair value measurement is tracked within the context of monthly analyses on the basis of the individual transactions in the sub-ledgers. Another reconciliation refers to the general and administrative expenses where the consolidated figure is reconciled to the individual accounts in the sub-ledger. In addition, a plausibility check using a control file is conducted regarding capital consolidation, in addition to the automated, standard system-based consolidation on individual entry level.

Mandatory accounting requirements are defined and communicated, amongst others, by the use of IFRS respectively HGB accounting manuals. These requirements, which include the analysis and interpretation of new and existing IFRS standards and interpretations, enable a group wide consistent accounting and measurement. Generally accepted valuation methodologies are employed. The procedures in place and the underlying parameters are monitored on a regular basis and adjusted if necessary.

In order to improve the quality of controls, various divisions are integrated in certain processes and are required to reconcile. For example, the interdepartmental new product process and the review of existing products (with a right of veto by the divisions Finance and Risk Management & Control) are designed to ensure that products are recognised in the financial reporting in a uniform and systematic manner. In addition, the processes of the market valuations undertaken by Risk Management & Control are coordinated in the GFC. Annual and interim report preparation is another example of interdepartmental coordination. All of the areas involved must sign off on these reports before they are officially prepared by the Management Board (subcertification process), creating an additional level of control for the products to be disclosed. All of the divisions affected agree in advance on the content of material sections of the annual and interim reports in editorial meetings.

pbb Group takes measures to combat fraud and intentional violations that negatively impact the Group. Fraud includes theft, embezzlement, or breach of fiduciary duty, as well as intentional accounting errors in connection with the consolidated financial reporting process.

Maintenance

In order to ensure that risks are identified, evaluated and limited as correctly and comprehensively as possible, pbb Group continually reviews and improves its ICS. This also involves adjustments to the ICS to reflect new circumstances, such as changes in the structure and business model of pbb Group or new satutory requirements.

The risk of fraud and intentional violations is regularly analysed in order to take defensive measures. Factors taken into account include suspicious events and changes in pbb Group's situation and that of individual employees.

Any changes to processes and IT systems required as a result of legislative amendments are implemented as separate interdepartmental projects with a clear allocation of functions. At the same time, the IKS is also adapted to the changes in the amended regulations.

Monitoring

The Group Internal Audit division is in particular responsible for checking that processes and procedures are carried out in a due and proper manner and identifying inefficiencies, irregularities or manipulation. The Group Internal Audit division also reviews the effectiveness and appropriateness of the IKS in an independent and risk-oriented manner in line with the rules set out in the Minimum Requirements for Risk Management (MaRisk), and identifies any weaknesses in risk identification, assessment and mitigation. This also includes reviewing the IT systems and the processes and controls of the Finance functions. Concrete action plans with specific deadlines are drawn up and their implementation monitored to remedy the identified shortcomings. Group Internal Audit as an independent division is not integrated into the workflow, nor is it responsible for the results of the audited process. In order to be able to carry out its duties, Group Internal Audit has a full and unrestricted right to information on activities, processes and the IT systems.

As the body responsible for supervising and advising the Management Board, the Supervisory Board may inspect and examine the Company's books and assets. In addition, the Management Board reports regularly to the Supervisory Board. Group Internal Audit reports to the whole Management Board and the Audit and Digitalisation Committee of the Supervisory Board at appropriate intervals, however, at least quarterly. The members of the Audit and Digitalisation Committee can directly obtain information from the heads of Group Internal Audit and Risk Management & Control. The Supervisory Board discusses the IKS. The Supervisory Board appoints the auditors of the Consolidated Financial Statements, the Unconsolidated Financial Statements and the Combined Management Report. The Supervisory Board approves the Consolidated Financial Statements and the Combined Management Report prepared by the Management Board and audited by the independent auditors.

The auditors of the financial statements attend the Supervisory Board meetings relating to the financial statements and all of the meetings of pbb Group's Audit and Digitalisation Committee to report on the material findings of their audit including material weaknesses in the IKS. Where relevant, the auditors immediately eport findings and issues that emerge during the audit and that are material for Supervisory Board to carry out their duties. The Supervisory Board discusses the focus of the audit with the auditors in advance.

Report on Expected Developments

MACROECONOMIC FORECAST

The global economic recovery is expected to continue in 2022, albeit with reduced momentum. In its most recent forecast from January, the International Monetary Fund (IMF) anticipates a slowdown in global growth from 5.9% in 2021 to 4.4% in 2022 and 3.8% in 2023 (source: IMF 2022).

Within the scope of their forecasting, institutions such as the IMF expect the pandemic situation to improve in the course of 2022 due to an accelerating vaccination rate and more effective treatments (source: IMF 2022). The emergence of new coronavirus mutations could shatter these expectations, especially if current vaccines prove less effective against these new variants or a significant proportion of the population remains unvaccinated. The restrictions that were taken to contain the pandemic could then remain in place for longer than expected or be reintroduced.

The development of inflation in 2022 poses another risk for the outlook. The sharp price increase had spread across a surprising number of components of the consumer basket last year and proved more persistent than expected (source: IMF 2022). This development is explained in particular by disruptions to worldwide supply chains and high commodity prices due to the pandemic. The effect of these factors on the development should be less pronounced during 2022 than in the previous year. According to a survey carried out by the ifo institute, the German industry mainly expects the burdens from supply constraints to ease (source: ifo 2021). Despite this, the IMF does not expect inflation in the industrialised countries to fall to 2.1% before 2023, while still forecasting a level of 3.9% for this year (source: IMF 2022).

However, persistently high commodity prices, for example, due to ongoing strong demand or geopolitical tensions, and disruptions to supply chains worldwide remaining in place for longer than expected could counter this projected slowdown in price increases (source: IMF 2022). The military conflict between Russia and Ukraine that started at the end of February 2022 led to a further surge in energy prices (source: Bloomberg). Depending on how the conflict evolves, prices could remain high for longer. Such a development would reduce households' purchasing power and could therefore curb consumer activity (source: ECB). In addition, the central banks could further tighten their monetary policy stance in the industrialised countries, which in turn would weigh on economic development.

Wage growth in 2021 proved moderate in many industrialised countries, even though employment had returned to near pre-crisis level (source: IMF 2022). In the short term, the current coronavirus wave could delay the recovery on the labour market from progressing further (source: German Federal Employment Agency 2021). Overall, the unemployment rate is expected to decline further in 2022.

The ECB expects the unemployment rate to fall from 7.7% to 7.3% in the euro area (source: ECB 2021). The Bundesbank expects unemployment in Germany to decline from 3.6% in 2021 to 3.2% this year (source: Bundesbank 2021), while the Bank of England anticipates a fall in UK unemployment from 4.5% in the fourth quarter of 2021 to 4% in the fourth quarter of 2022 (source: BoE 2021). The US Federal Reserve anticipates an unemployment rate of 3.5% for the final quarter of this year – close to full employment – after 4.3% in the fourth quarter of 2021 (source: Fed 2021). Against this background, the shortage of labour is expected to rise further in the course of this year. This in turn raises the risk that wage pressures will increase outside

the US, too – leading to second-round effects, contributing to sustained high inflation in 2022 (source: IMF 2022).

The inflationary trend had already led to tighter monetary policy in 2021, and is expected to continue in 2022. The US Federal Reserve plans to phase out its asset purchase programme in March 2022 and anticipates at least three interest rate hikes this year, to between 0.75% and 1% (source: Fed 2021). This must be seen against the backdrop of persistently high inflation in 2022 in conjunction with a tight labour market and strong wage growth.

The European Central Bank (ECB) will end its pandemic emergency purchase programme (PEPP), probably in March 2022. The planned continuation of the APP asset purchase programme, combined with an increase from previously €20 billion monthly to €40 billion in the second quarter and to €30 billion in the third quarter of 2022, represents a reduction of the previous monthly purchase volume of around €70 billion (source: ECB 2021). This implies lower monetary policy momentum in the euro area compared to the previous year. The ECB does not plan to increase key interest rates before the inflation target of 2% is reached in the medium term. In its forecast from last December, the ECB still thought inflation would remain below the 2% target in 2023 and 2024 (source: ECB 2021). New and undoubtedly higher inflation forecasts are expected in March 2022, which may open the door for interest rate hikes as early as 2022 (source: ECB).

The Bank of England raised the bank rate by 0.15% in December 2021 to 0.25% and by a further 0.25% in February 2022 to 0.5%. The financial markets anticipate further interest rate hikes towards 1.25% this year, reflecting the likelihood of a further increase in inflation in the first few months of 2022 (source: Bloomberg 2022).

From a European perspective, the main risk associated with the conflict between Russia and Ukraine is that sanctions and Russian countermeasures could disrupt energy supplies from Russia. Higher energy prices not only burden households' purchasing power but are also likely to drive up inflation further (source: ECB). Higher inflation on the one hand and weak economic activity on the other represent a dilemma for monetary policy. The conflict between Russia and Ukraine could potentially delay the ECB's tightening monetary policy (source: Bloomberg).

In addition to expansive monetary policy, fiscal policy will support economic development in the euro area in 2022, although to a lesser extent than in the previous year (source: ECB 2021). The IMF expects the economy to expand by 3.9% in 2022 after 5.2% in 2021 (source: IMF), with domestic growth being main driver. The recovery on the labour market and gradual reduction of surplus savings accumulated during the pandemic should support private consumption. Investment activity should benefit from the robust demand and favourable financing conditions, as well as from the stimuli of the NextGenerationEU programme (sources: EU Commission 2021, ECB 2021).

The economic recovery within the euro area is likely to be heterogeneous (source: EU Commission 2021). Countries for which exports play a significant role or where the manufacturing industry is comparatively important were particularly affected by supply disruptions. Growth in Germany is therefore expected to pick up in 2022 from 2.7% in the previous year to 3.8% (source: IMF 2022). Greater momentum – from 4.9% to 5.8% – is expected in Spain (source: IMF 2022). On the other hand, lower momentum is expected in France and Italy in 2022, which had experienced very strong economic growth in 2021. The International Monetary Fund (source: IMF 2022) assumes that the French economy will grow by 3.5% this year (2021: 6.7%), while Italian gross domestic product should increase by 3.8% (2021: 6.2%).

In the US on the other hand, fiscal policy should have negative implications for growth (source: IMF 2022). This is explained in particular by the fact that the planned passing of the Biden administration's Build Back Better fiscal programme of up to USD 2 trillion is becoming increasingly unlikely, due to resistance within the Democratic party and the lack of a majority in the US Senate (source: IMF 2022). Against this background, the IMF has lowered its growth expectations for the US economy by 1.2 percentage points to only 4% in 2022. It was still forecasting 5.2% growth in October 2021.

In the UK, a shortage of labour, the progress of the pandemic and persistently high energy prices are likely to contribute to the slowdown in growth. This is compounded by declining monetary and fiscal policy support (source: BoE 2021). Overall, the IMF expects growth of 4.7% in 2022, after 7.2% in 2021 (source: IMF 2022).

Economic momentum in Sweden should ease somewhat in 2022. The EU Commission expects gross domestic product to rise by 3.8% after 5.0% in the previous year. The easing of supply constraints should provide support, as well as the consistently strong development of private consumption (source: EU Commission 2022).

In Eastern Europe, the EU Commission expects comparatively solid growth in 2022: 5% in Hungary, 5.5% in Poland and 4.4% in the Czech Republic (source: EU Commission 2022). Domestic demand is the main growth driver here.

SECTOR-SPECIFIC FORECASTS

Overall Situation in the Banking Sector

Thanks to the state support measures for non-financial corporations and private households, as well as state-guaranteed loans, the banking sector did not incur more extensive losses despite the sharp economic downturn (source: Deutsche Bundesbank). However, negative macroeconomic developments in the future could pose challenges for the German financial system again in the future. Unlike the downturn during the pandemic, future economic crises could have greater repercussions on a microeconomic level and therefore lead to losses, restructuring of companies and insolvencies. The financial sector would therefore be affected to a greater extent (source: Deutsche Bundesbank).

Real Estate Finance

Uncertainty continues to prevail as to how the expected further recovery will proceed in 2022. However, investors will continue to find real estate very attractive, due to its relatively strong performance compared with other forms of investment. On the back of current assumptions, it is fair to anticipate that the volume of investment in the years ahead will return to the strong pre-crisis levels. (sources: CBRE, Oxford Economics)

The availability of financing from banks and alternative providers of credit, sufficient financing is likely to remain available on the whole for sought-after locations and asset classes such as office, residential and logistics real estate. (source: IREBS)

Public Investment Finance

Financing conditions for public investment should remain favourable in 2022 as a result of the European Central Bank's policy. In its Autumn 2021 Economic Forecast, the European Commission saw the public investment-to-GDP ratio for 2022 rise again slightly compared to 2021, to 3.2% in the euro area. Public investments have been supported by the EU reconstruction fund "NextGenerationEU", with a total budget of €750 billion, which will help member states meet their huge investment needs (source: European Commission).

Value Portfolio

pbb Group expects developments in 2022 to remain difficult to assess, although the ECB's objective of stable money and financial markets means that it is reasonable to assume that these will continue to be effectively supported by ECB measures (source: ECB).

As in the previous year, Italy will be monitored particularly closely due to its current instability.

Funding Markets

Besides macroeconomic and political uncertainties, capital markets are expected to focus in 2022 on the ECB's future policy, higher inflation, and the further progress of the COVID-19 pandemic. Given the increase in inflation, pbb Group considers it possible that the ECB will soon turn around and adopt a tighter monetary policy. As expected, the ECB will cease the net purchases it made under the Pandemic Emergency Purchase Programme (PEPP) at the end of March. However, it will temporarily extend its regular bond purchases, in order to cushion the end of PEPP. Should inflationary pressure persist, it is possible that it could end its APP purchase programme ahead of schedule, or raise euro area interest rates earlier, especially since the US Federal Reserve has already signalled that it will raise the Fed Funds rate soon. With regard to the primary markets, pbb Group expects issuing activity to normalise with higher new issue volume than in 2021. TLTRO repayments could offer more scope again for Pfandbrief issues. Nonetheless, Pfandbrief spreads should remain well supported, while unsecured bank bond spreads should visibly widen (sources: ECB, Bloomberg).

COMPANY FORECASTS

The forecasts for pbb Group's future development represent estimates that were made on the basis of the information currently available. If the assumptions on which the forecasts are based on do not materialise or if risks and opportunities do not occur to the extent calculated, the actual results may differ significantly from the results currently expected.

Future Developments in Assets, Financial Position and Earnings

Due to the ongoing COVID-19 pandemic, the forecast for the key performance indicators in 2021 (as defined in the chapter “Internal Management System”) is subject to a high degree of uncertainty. In view of the great macroeconomic and industry-specific uncertainties, this applies in particular to risk provisioning. Overall for the financial year 2022 the key performance indicators are expected to develop as follows:

Key performance indicator	Initial position (financial year 2021)	Forecast (Financial year 2022)
New business volume Real Estate Finance (including prolongations with maturities of more than one year)	€9.0 billion	A volume of between €9.5 billion and €10.5 billion is aimed.
Finanzierungsvolumen Real Estate Finance	€27.6 billion	A slight increase is aimed.
Profit before tax	€242 million	A profit in a range between €200 million and €220 million is aimed.
Cost-income ratio	40.4%	A range between 45% and 47% is aimed.
Return on equity after tax	7.0%	A range between 4.5% and 5.5% is aimed.
CET1 ratio	17.1%	CET1 ratio should be above 15.0% and therefore significantly above the SREP ratio of approximately 8.4% that pbb has to comply with in addition to the country-specific (and thus portfolio-specific) varying counter-cyclical capital buffer.

In 2022, the REF segment should again contribute the lion’s share of pre-tax profit.

With regard to risk-bearing capacity, the normative perspective aims to ensure that minimum capital ratios required by the supervisory authorities are met even under an adverse economic scenario. With regard to the economic perspective, pbb Group aims to ensure that the capital available to cover the risks adequately exceeds the economic capital requirement on a sustained basis.

Opportunities and Risks

Evolution of the COVID-19 pandemic

The COVID-19 pandemic and the resulting containment measures had a major impact on macroeconomic and industry-specific development in 2020 and 2021. A significant macroeconomic recession in pbb Group’s relevant core markets was followed by an economic recovery, which was nonetheless weakened in part by new developments in the pandemic. The further progress of the pandemic will depend, for example, on mutations of the virus on the one hand and on the effectiveness of vaccines and medicines and the vaccination ratio on the other, and will influence the extent to which social intervention will be necessary. Examples of such measures include lockdowns with contact restrictions and shutting down the operations of certain economic sectors. The risk of higher impairments on financial assets such as retail and hotel financings, or other types of property due to tenant insolvencies, for example, is the result of negative effects on the economy due to the pandemic. However, if the pandemic were to subside more quickly than anticipated, pbb Group’s risk provisioning (including the management overlay) would no longer be necessary to the extent recognised. In addition to this, unexpected developments resulting from the pandemic and its containment measures could have an effect on the fair value of financial instruments in the future. Also, client behaviour with respect to pbb Group’s new business or early repayments may depend on how the pandemic evolves (sources: ifo Institute, Federal Statistical Office).

Politics and geopolitical tensions
Economic and geopolitical tensions may lead to distortions in the markets relevant to pbb Group, burdening its financial position and financial performance. Amongst other things – but in particular, military or other conflicts between different countries – can have negative effects on the economy and therefore on pbb Group. Due to our globalised and networked world, this can also be triggered by conflicts between countries in which pbb Group has no direct exposure. The military conflict between Russia and Ukraine that started at the end of February can, for example, weigh on economic development in pbb Group's target markets. The war can spread to other countries, too. Sanctions can also have negative implications. Overall, these can give rise to impairment, discounts applied to fair values, or other negative effects. The risks arising from the conflict between Russia and Ukraine are being closely and continuously monitored, to allow necessary measures to be taken. pbb Group's exposure to these countries is presented in the Note "Report on material events after the reporting date".

Economy
Irrespective of the effects of the COVID-19 pandemic, positive economic development in the euro area, and especially in Germany, is expected to have a favourable impact on development in earnings, as, for example, pbb Group will only have to make moderate provisions when assuming credit risks, and fair values of financial assets could also increase. A slowing economy or indeed a recession could increase the required level of provisions for pbb Group, leading to lower fair values of financial assets as well as a drop in new business volume, thus also burdening the development in earnings. Besides the progression of the pandemic, persistent supply bottlenecks or a marked increase in inflation in recent months could also have a burdening effect on economic growth (source: ifo Institute).

National Debt
To combat the COVID-19 pandemic and its economic burdens, many sovereign governments, Federal states and municipalities have taken on significant debt. As a consequence, the ratings of public sector budgets may be downgraded and possibly even become insolvent, which would lead to impairments and payment defaults for pbb Group. (sources: Institute of the German Economy, Federal Statistical Office)

Environmental risks and climate change
Governments around the world have taken steps to make the transition to a more circular economy that uses less CO_2, in order to contain climate change. This transformation harbours both opportunities and risks for the economy in general and for pbb Group specifically.

Damage to property caused by the environmental destruction and climate change can have considerable consequences for the real economy and the financial system. This can lead to, for example, increasing damage to buildings or other assets held as collateral for financings, caused by flooding, storms, drought or other natural disasters. Although pbb Group's clients are required to insure the physical collateral underlying the financings, adverse effects on its financial position and financial performance cannot be ruled out (source: ECB).

The transformation will presumably lead to considerable financial and capital requirements. Risks could arise, for example, in the form of impairments on pbb Group's loans and advances, if borrowers cannot refinance this requirement from their own income and the financed properties diminish in value due to their poorer sustainability. However, the transformation can also generate business opportunities. Examples on the assets side include financings for sustainable buildings or energy-efficient refurbishments, which pbb Group already offers through its green loans. On the liabilities side, additional issuance of green bonds can create opportunities.

Real Estate Markets

Real estate prices increased considerably in the years leading up to the COVID-19 pandemic. The pandemic influenced the different real estate sectors to varying degrees. While properties for residential use held their own with stable to rising prices, the logistics segment and supermarkets were in fact among the winners of the pandemic. Hotels and shopping centres, on the other hand, were severely burdened and have only managed to partially recover up to now. Further restrictions to contain the pandemic could have a negative effect on the recovery trend. As regards office property, there is a shift towards modern mode of working with flexible floor concepts. Sustainability will also influence user and investor behaviour.

Overall, negative effects on the market values of properties could lead to restrictions on new business and the need for write-downs on pbb Group's existing financings. pbb Group on the other hand could potentially benefit from lower write-downs being required, especially if markets burdened by the pandemic recover. In addition, the change in real markets could generate new business opportunities for pbb Group. (sources: Deutsche Bundesbank, Jones Lang Lasalle, CBRE)

Interest Rates

Should market interest rates in the euro area rise again, investing liquidity reserves and own funds could improve the development in earnings; at the same time, funding costs would increase and earnings from floors agreed upon with clients would decrease. An opposite effect could occur if the low interest rate policy were to persist for the longer term.

Early Prepayments

In a low interest rate environment, early prepayments of loans granted are to be expected. Although this could benefit pbb Group's development in earnings in the short term, for example due to early repayment penalties, it could have a negative impact in the long term due to the lower financing volume.

Competition

Due in part to the persistently low interest rate policy, pbb expects competition in commercial real estate financing to remain intense in 2022. The resulting pressure on margins may in turn weigh on pbb's development in earnings. Conversely, a slowdown in the intensity of competition – for example due to consolidations in the banking industry – would benefit the Bank's development in earnings.

Digitalisation

In view of increasing cost competition in the banking sector – enhanced by so-called FinTech and PropTech companies – and in order to explore new sources of income, pbb Group is increasingly focusing on digital business processes and models. In future, digitalisation may incur risks as well as opportunities for the development in assets, financial position and earnings, depending especially on the success of digital business models and further IT developments.

Regulatory Environment

pbb Group is required to adhere to a wide variety of legal and regulatory requirements and provisions. The further development of provisions may impact the development in assets, financial position and earnings, as well as capital requirements, funding and pbb Group's business activities – positively and negatively. Furthermore, implementing requirements usually incurs costs.

Within the scope of the SREP, a CET1 minimum ratio and an own funds minimum ratio were set for pbb Group. It cannot be ruled out that the ECB defines even higher capital requirements, or even higher capital ratios in future. This could impact pbb Group's development in assets, financial position and earnings.

The announced increase in countercyclical buffers and the systemic risk buffer for German residential construction loans will have an impact on pbb Group's capital requirements in 2023. Based on the figures as at 31 December 2021, the effect of all currently known increases in the countries relevant for pbb Group (including Germany) as well as the systemic risk buffer would result in a total institution-specific buffer of up to 0.5%. Possible developments in 2022 are not taken into account here. The actual amount for the first application in 2023 depends on the development of the relevant RWA as well as on further country-specific adjustments

IT Security
pbb Group attaches great importance to the security of its information systems. The aim is to keep IT systems running smoothly and to prevent unauthorised access to system and data resources. Employees of pbb Group may only access data they require for the tasks assigned to them. Should the risk of loss of confidentiality, integrity and authenticity of data materialise, for example through (cyber) attacks, it can lead to manipulations and/or an uncontrolled outflow of data, a loss of reputation and thus a negative impact on development in earnings.

Human Resources
pbb Group has attracted highly qualified employees and executives in recent years. A modern and flexible working environment, a broad range of training and personnel development measures, as well as attractive remuneration and fringe benefits help retain employees in the long run. Nevertheless, risks from employee losses and the associated loss of knowledge cannot be fully excluded. In order to continue to successfully win new employees, pbb Group is increasingly focusing on the recruitment and development of young talent and has developed an employer brand for itself, making greater use of modern recruitment channels. Nonetheless, the general shortage of skilled workers can also impact pbb Group.

Legal and tax matters
It is possible that legal proceedings yield different results than expected by pbb Group. Thus, an outflow of resources can deviate positively or negatively from the recognised provisions. Risks can also arise from new legal action. Depending on the type of deviation and legal action, this may result in opportunities or risks for the development in earnings. This risk also covers external tax audits by fiscal authorities, which may result in additional taxable income and thus in an increase in tax expenses attributable to previous periods.

Corporate and social responsibility
Corporate social responsibility refers to a responsible, entrepreneurial spirit that integrates environmental and social aspects as well as responsible corporate governance – on a voluntary basis – into business activities and in interactions with stakeholders and beneficiaries.

pbb makes a voluntary contribution to a more sustainable development that goes beyond the legal requirements. This can create opportunities for pbb Group, for example, in the client business and as an attractive employer. In contrast, weaknesses in corporate social responsibility can weigh on the relationship to internal and external groups of individuals with whom pbb Group interacts, with the corresponding negative effects on its development in assets, financial position and earnings.

Brexit
In the United Kingdom, the specific economic problems related to Brexit were compounded by the crisis caused by the COVID-19 pandemic. This led, for example, to supply shortages due to the stricter immigration rules brought in along with more customs duties and bureaucracy. According to pessimistic forecasts, Brexit will severely impact the UK's gross domestic product. The trend in gross capital investment in the United Kingdom is extremely sector-dependent. Major investment projects will influence economic development in the coming years, especially state-funded infrastructure investment, residential construction and logistics (sources: Office for Budget Responsibility, Germany Trade & Invest).

pbb Group closely monitors developments in the United Kingdom and recognises loss allowances in the amount of expected credit losses. Despite this, higher loss allowance could potentially burden results. On the other hand, economic development that exceeds expectations could lead to a reversal of risk provisioning. Given its current organisational and operational structure, pbb Group sees no immediate need for action with regard to its business model, nor for an adjustment of the organizsational structure.

A key component of the monitoring is whether, and, if so, which new regulatory requirements will have to be met by pbb's branch office in London with the UK supervisory authorities (PRA and FCA), in order to be able to continue operating in the United Kingdom. Following the UK withdrawal from the EU on 31 January 2020 and after the transition period ended with 2020, the Temporary Permissions Regime (TPR) came into effect, which allows banks such as pbb, which have previously operated on a passporting basis, to continue to do business in the UK (source: Bank of England). pbb notified the UK authorities of its participation in the TPR at an early stage. Going forward, pbb will seek authorisation from the FCA to operate in the UK and is invited to submit an application during the TPR for the second quarter 2022.

SUMMARY

pbb Group is well positioned for continued profitability, in an environment that features not only declining margins due to intensified competition, but also growing regulatory requirements. However, due to the enormous macroeconomic and sector-specific uncertainties, mainly caused by the difficulties in predicting the evolution of the COVID-19 pandemic, forecasting risk provisioning is particularly difficult at present. Giving due consideration to the opportunities and risks, pbb Group expects to generate a pre-tax profit of between €200 million and €220 million in 2022.

Commentary on pbb's Annual Financial Statements under HGB

BUSINESS DEVELOPMENT

In the financial year under review, pbb achieved profit before taxes of €220 million, as reported in its single-entity financial statements in accordance with the German Commercial Code (Handelsgesetzbuch, HGB), significantly exceeding the figure achieved in the previous year (2020: €148 million). The improved results were attributable to markedly higher net interest income, which benefited from higher early termination fees and the interest rate premium received under the ECB's TLTRO III programme. Moreover, net additions to risk provisions were significantly lower than in the previous year, whereas general administrative expenses were higher year-on-year, also due to higher project costs.

New business volume, as well as pbb's financing volumes, are in line with the information provided in pbb Group's Report on the Economic Position.

DEVELOPMENT IN EARNINGS

in € million	2021	2020
Net interest income	583	523
Net fee and commission income	6	6
Net other operating income	-36	-4
Net operating income	**553**	**525**
General and administrative expenses	-246	-220
Personell expenses	-135	-117
Non-personell expenses (including depreciation and write-offs)	-111	-103
Operating results (before loan loss provisions)	**307**	**305**
Risk provisioning	-85	-153
Net income from financial investments	-2	-4
Additions to the fund for general banking risks	-	-
Operating results	**220**	**148**
Extraordinary result	-	-
Profit before tax	**220**	**148**
Taxes	-38	-36
Net income	**182**	**112**

Net Operating Income

Net interest income increased from €523 million in the previous year to €583 million in 2021, mainly due to higher early repayment fees as well as reversals of fees not yet received due to the early derecognition of financial instruments in an aggregate amount of €84 million (2020: €30 million). A further material factor contributing to the increase in net interest income were interest rate benefits from participation in the TLTRO III refinancing programme during the special interest rate period, accrued over the term. As at the reporting date, pbb's total volume of liabilities under the TLTRO III programme was a nominal amount of €8.4 billion. Since eligible net lending increased as at 31 December 2021 in comparison to the reference value, pbb will receive an interest rate premium of 50 basis points for the period between 24 June 2021 and 23 June 2022. This interest rate benefit is accrued over the term. The higher average portfolio of disbursed (and hence interest-bearing) REF exposures (2021: €27.2 billion; 2020: €26.9 billion) also favoured net interest income. The termination and novation of derivatives resulted in income of €15 million (2020: €22 million). Net interest income was burdened, however, by investing maturing own funds and financial assets in the liquidity portfolio at lower interest rates. As in

the previous year, net interest income includes the expense for the AT1 capital in the amount of €17 million (2020: €17 million).

Net fee and commission income from non-accruable fees was unchanged, at €6 million (2020: €6 million).

Net other operating income/expenses amounted to €–36 million (2020: €–4 million), with expenses for the bank levy (2021: €27 million; 2020: €23 million) – taking into account pledged collateral amounting to 15 per cent – being the biggest individual item. The year-on-year increase in expenses for the bank levy was due, amongst other factors, to a significant increase in the Resolution Fund's target volume at EU level. Net other operating income/expenses also included €6 million in currency translation expenses (2020: income of €2 million). Additions and reversals of provisions outside the lending business largely offset each other in 2021, whereas the previous year's figure benefited from the reversal of provisions for tax and legal issues.

General and Administrative Expenses
General and administrative expenses amounted to €246 million (2020: €220 million). Personnel expenses were burdened by provisions of €10 million for termination benefits from the termination of employment relationships related to digitalisation measures designed to enhance efficiency and improve processes. Moreover, personnel expenses increased due to higher average staff numbers, for example in the IT and digitalisation areas. Lower staff fluctuation also had an effect here. Other administrative expenses increased in particular due to costs for strategic and digitalisation projects.

Risk Provisioning
Risk provisioning, being the balance of provisions for possible loan losses and the result from securities and promissory note loans of the liquidity reserve, was increased by net additions of €85 million (2020: €153 million). In terms of the lending business, a net amount of €45 million (2020: €71 million) referred to general valuation allowance recognised to account for potential default risks in the lending business. General valuation allowances for securities and promissory note loans of the liquidity reserve increased by €1 million net (2020: €14 million). More favourable macroeconomic expectations led to a reversal of general valuation allowances. However, since the underlying assumptions and modelling do not cover all the relevant risk factors in the current situation that is subject to particularly high uncertainty, the Management Board recognised a management overlay of €62 million, increasing loss allowance. The notes to the financial statements contain detailed information on the reasons for creating the management overlay, and on the manner in which it was determined. Moreover, general valuation allowances were increased by an additional €75 million due to measurement changes, which are also outlined in the notes to the annual financial statements.

Additions to specific loan loss provisions of €39 million (2020: €68 million) were related to a few financings only, mainly affecting financings of shopping centres in the UK. pbb also changed a measurement method for determining specific loan loss provisions; this change, which is outlined in the notes to the annual financial statements, reduced risk provisions by €4 million.

Net Income from Financial Investments
Net income from financial investments amounted to €-2 million (2020: €-4 million). The expense was mainly due to general valuation allowances for an investment in a subsidiary. In the previous year, the expense was attributable to the assumption of this subsidiary's losses.

Taxes
The tax expense amounted to €38 million (2020: €36 million) and almost exclusively resulted from expenses for taxes on income.

DEVELOPMENT IN ASSETS

in € million	31.12.2021	31.12.2020
Cash reserve	6,607	5,376
Loans and advances to other banks	3,484	2,822
Loans and advances to customers	37,406	37,315
Bonds and other fixed-income securities	6,966	7,673
Equity shares and other variable-yield securities	2	2
Investments in affiliated companies	13	14
Intangible assets	19	18
Tangible assets	3	4
Sundry assets	87	162
Prepaid expenses	259	309
Total assets	**54,846**	**53,695**

General Development in Assets

As at the reporting date, pbb's total assets stood at €54.8 billion, which is an increase of €1.2 billion compared to 31 December 2020. Factors contributing to this increase included a higher cash reserve, which resulted from the investment of funds raised through participation in the eighth tranche of the TLTRO III programme, as well as from issuance of Mortgage Pfandbriefe. An additional factor for the higher level of total assets was an increase in loans and advances to banks, due to higher reverse repos. Loans and advances to customers were in line with the previous year-end: higher nominal volumes of commercial real estate finance were offset by the reduction of exposures in line with the Bank's strategy, including the Value Portfolio. The run-off of the Value Portfolio also affected debt and other fixed-income securities, in the form of maturities.

DEVELOPMENT IN FINANCIAL POSITION

in € million	31.12.2021	31.12.2020
Liabilities to other banks	11,000	10,227
Liabilities to customers	18,028	19,670
Securitised liabilities	21,134	19,150
Sundry liabilities	26	25
Deferred income	470	523
Provisions	264	250
Subordinated liabilities	657	687
Additional Tier 1 capital instruments	312	312
Fund for general banking risks	47	47
Total liabilities	**51,938**	**50,891**
Equity	2,908	2,804
Total liabilities and equity	**54,846**	**53,695**

Liabilities

Liabilities amounted to €51.9 billion (31 December 2020: €50.9 billion). The increase was due to higher liabilities to banks, reflecting the Bank's participation in the eighth tranche of the ECB's TLTRO III programme. In addition, securitised liabilities rose on account of Mortgage Pfandbriefe issued, whilst liabilities to customers declined due to maturities of Public Sector Pfandbriefe and registered Mortgage Pfandbriefe. The slight increase in provisions was due, in particular, to the lower discount rate for pension provisions.

Additional regulatory capital instruments include Additional Tier 1 (AT1) capital in the total nominal amount of €300 million and a carrying amount of €312 million, including interest accrued. The bond issued by pbb on 12 April 2018 carries an initial coupon of 5.75% p.a. and has no final maturity. There are certain conditions attached to the coupon payments.

Equity

Equity

in € million	31.12.2021	31.12.2020
Share capital	380	380
Additional paid-in capital	1,639	1,639
Retained earnings	730	670
Unappropriated retained earnings	159	115
Equity	**2,908**	**2,804**

For the financial years 2021 and 2020, pbb's share capital was unchanged, at € 380,376,059.67, consisting of 134,475,308 registered ordinary bearer shares in the form of no-par value shares with a notional interest in the share capital of €2.83 per share. The additional paid-in capital remained unchanged. Within retained earnings, legal reserves remained unchanged in the financial years 2021 and 2020. €60 million was allocated from net retained profit to other retained earnings, comprising €23 million from from net income and €37 million from profits carried forward from 2020 (31 December 2020: €121 million allocation to other retained earnings).

Pursuant to a resolution adopted by the Annual General Meeting on 12 May 2021, pbb paid a dividend of €0.26 per no-par value share entitled to dividends (€35 million) to its shareholders. Moreover, a payout of a further dividend of €0.32 per no-par value share entitled to dividends (€43 million) was resolved at the Extraordinary General Meeting on 10 December 2021. This corresponds to total dividends for the 2020 financial year of €0.58 per no-par value share entitled to dividends (€78 million).

Key Regulatory Capital Ratios

According to Art. 7 (3) of the Capital Requirements Regulation ("CRR"), pbb was exempted from the re-quirements laid out in parts 2 to 5 and 8 of the CRR; for instance, this includes own funds and capital requirements, stipulations on large exposures and exposures to transferred credit risk, as well as disclosure requirements.

Disclosures Pursuant to Section 315a (1) HGB

pbb Group's Supplemental Information according to section 315a (1) of the German Commercial Code (HGB) is equal to pbb's Supplemental Information according to section 289a (1) HGB.

Composition of Subscibed Capital (Section 315a (1) No. 1 HGB)
The composition of pbb's subscribed capital is disclosed in the Note "Equity". Each bearer share with no par value entitles the shareholder to one vote at the Annual General Meeting. pbb currently does not hold any nonvoting treasury shares. No shareholder and no shareholder group is entitled to special rights, that confer power to control vis-á-vis pbb.

RESTRICTIONS AFFECTING THE VOTING RIGHTS OR THE TRANSFER OF SHARES (SECTION 315A (1) NO. 2 HGB)

With respect to the exercise and transfer of voting rights of shares only the statutory provisions apply. The voting rights are not limited by size. All shareholders who register for participation in the Annual General Meeting in time and who have demonstrated their right to participate in the Annual General Meeting and to exercise their voting rights may exercise the voting rights subject to a possible loss of rights in accordance with section 44 of the German Securities Trading Act (Wertpapierhandelsgesetz, WpHG) or section 59 of the German Securities Acquisition and Takeover Act (Wertpapiererwerbs- und Übernahmegesetz; WpÜG) attached to all the shares held and registered by them. Where pbb holds treasury shares, section 71b of the German Stock Corporation Act (Aktiengesetz, AktG) prohibits the exercise of rights vested in such shares.

HRE Holding has committed itself to avoid exercise of control over pbb by entering into a control avoidance agreement with pbb. HRE Holding undertakes to exercise voting rights vested to it at the point in time at which the control avoidance agreement enters into effect, and/or at any subsequent point in time at which HRE Holding holds pbb shares, to a maximum of 49% of the present voting capital at the adoption of resolutions regarding the appointment or removal of Supervisory Board members as well as resolutions taken as part of management decisions according to sections 83, 111 (4) sentences 3 to 5, 119 (2) or 179a of the AktG, not to make any proposals for resolution to pbb's Annual General Meeting, in particular for the appointment of Supervisory Board members, and not to vote for candidates for pbb's Supervisory Board which are not independent from HRE Holding, Finanzmarktstabilisierungsfonds-FMS (FMS), FMSA and the Federal Republic of Germany, with the exception of two Supervisory Board members proposed by FMSA to pbb in line with the new framework agreement.

pbb is not aware of any other restrictions affecting voting rights or the transfer of shares.

Shareholdings Exceeding 10% of Voting Rights (Section 315a (1) No. 3 HGB)
According to the knowledge of pbb no shareholder held at least 10% interest in the pbb as of 31 December 2020.

The notifications of voting rights pursuant to sections 33 et seq. of the German Securities Trading Act (Wertpapierhandelsgesetz, WpHG), published by pbb, are available online, inter alia, under "https://www.pfandbriefbank.com/en/investors/mandatory-publications/notifications-according-to-33-et-seq-wphg.html".

Shares with Special Rights Conferring Powers of Control (Section 315a (1) No. 4 HGB)
Shares carrying special rights, which would permit the holder to exercise control, do not exist.

Type of Control of Voting Rights Regarding Shares Held by Employees with their Rights of Control not Being Directly Exercised (Section 315a (1) No. 5 HGB)
Employees holding pbb shares exercise their rights, like all other shareholders, according to statutory provisions and the Articles of Association.

Statutory Provisions, and Provisions in the Articles of Association Regarding the Appointment and Removal of Members of the Management Board, and Regarding Amendments to the Articles of Association (Section 315a (1) No. 6 HGB)
In accordance with section 84 of the AktG and section 6 of the Articles of Association, the members of the Management Board are appointed by the Supervisory Board. The number of members of the Management Board is determined by the Supervisory Board. Pursuant to the Articles of Association, the Management Board consists of at least two members. Members of the Management Board are appointed for no more than five years per term. The term of office may be renewed or extended for a maximum of five years in each case. In case of urgency, the Local Court of Munich (Amtsgericht) shall appoint a missing member of the Management Board upon application of a party involved (section 85 of the AktG). The Supervisory Board may revoke an appointment to the Management Board, and also an appointment to the position of Chairman of the Management Board, should there be good cause for doing so.

Evidence that the Management Board members are trustworthy, have the required professional qualifications, and are sufficiently available, must be provided to BaFin, ECB and the German Bundesbank. According to section 45c of the German Banking Act (Kreditwesengesetz, KWG), BaFin may appoint a special representative, and entrust him or her with the performance of activities of individual Management Board members. BaFin may prohibit members of the Management Board from carrying out their activities, or limit the performance of these activities.

Any amendment of the Articles of Association requires a resolution of the Annual General Meeting (section 179 (1) sentence 1 of the AktG), for which generally a simple majority of the votes cast is required according to section 17 of the Articles of Association, provided, however, that no higher majority is required by law or other sections of the Articles of Association. In cases where a majority of the share capital represented during the passing of the relevant resolution is required – under no formal restrictions – due to regulatory requirements, the simple majority of the share capital represented during the passing of the relevant resolution shall be sufficient. According to section 9 (3) of the Articles of Association, the Supervisory Board shall be authorised to amend the Articles of Association, provided that such amendments are restricted to the wording.

Authorisation of the Management Board to Issue or Repurchase Shares (Section 315a (1) No. 7 HGB)

Authorised Capital 2020/I
In the period until 27 May 2025 the Management Board is authorised to increase, on one or more occasions, pbb's share capital by up to a maximum total amount of €114,112,817.90 by issuance of new ordinary bearer shares with no par value for contribution in cash, subject to the approval of the Supervisory Board (authorised capital 2020/I). The shareholders' subscription rights may be excluded under certain conditions. The authorised capital 2020/I has not been used yet.

Authorised Capital 2020/II
In the period until 27 May 2025 the Management Board is authorised to increase, on one or more occasions, pbb's share capital by up to a maximum total amount of €38,037,605.96 by issuance of new ordinary bearer shares with no par value for contribution in cash or in kind,

subject to the approval of the Supervisory Board (authorised capital 2020/II). The shareholders' subscription rights may be excluded under certain conditions. The authorised capital 2020/II has not been used yet.

Furthermore, the Management Board shall be authorised, with the consent of the Supervisory Board, to determine further details concerning the rights attached to shares as well as the conditions of share issuances in the context of the capital measures specified in section 4 of the Articles of Association (authorised capitals 2020/I and 2020/II).

Conditional Capital
Currently there is no conditional capital any more, since the resolved authorisation (as well as the authorisation to issue convertible bonds and warrant bonds) from the Annual General Meeting on 10 June 2015 has expired and has not been renewed.

Profit Participation Rights and Hybrid Bonds
The Management Board is authorised to issue bearer or registered profit participation rights and other hybrid financial instruments with or without a limited term on one or more occasions until 27 May 2025. The total nominal amount of the financial instruments to be issued under this authorisation may not exceed €2,000,000,000.00 in total.

Treasury Shares
pbb is authorised to buy, for purposes other than securities trading, its own shares in a total volume of up to 10% of the share capital as of 28 May 2020 or – if such amount is lower – of the share capital at the time this authorisation is exercised. Together with other own shares which are in the Company's possession or attributable to the Company pursuant to sections 71d and 71e of the AktG, the own shares purchased on the basis of this authorisation may not at any time exceed 10% of the Company's share capital. This authorisation to acquire own shares may be exercised directly by pbb, Group entities (section 18 (1) of the AktG) subordinated to pbb, or third parties acting on behalf of pbb or on behalf of Group entities subordinated to pbb. This authorisation may be exercised fully or partially, and – in case of a partial exercise – more than once. This authorisation applies until 27 May 2025. The own shares may, at the discretion of the Management Board, be bought through a stock exchange or by means of a public purchase offer or by means of a public invitation to all shareholders to submit tenders described in more detail in the resolution of the Annual General Meeting of 28 May 2020.

The Management Board is authorised, with the consent of the Supervisory Board, to use any shares purchased on the basis of the authorisation described above for a disposal on the stock exchange or for an offer to all shareholders or to dispose against cash payment provided that the price may not be substantially lower than the stock price of the shares of the Company of the same kind by applying section 186 (3) sentence 4 of the AktG analogously, or to dispose against contribution in kind or to redeem the shares. The shareholders' subscription rights may be excluded as described in more detail in the resolution of the Annual General Meeting of 28 May 2020.

As at 31 December 2020, pbb held no treasury shares.

Material Company Agreements which are Subject to Change of Control Clauses Triggered in the Event of a Takeover Offer (Section 315a (1) No. 8 HGB)

pbb did not enter into material agreements which are subject to change of control clauses triggered in the event of a takeover offer.

Compensation Agreements Entered into with Members of the Management Board or Employees in the Event of a Takeover Offer (Section 315a (1) No. 9 HGB)

There are no compensation agreements within the meaning of Section 315 (4) No. 9 HGB that have been concluded with members of the Management Board or employees in the event of a takeover offer.

Corporate Governance Statement

The Corporate Governance Statement is published on pbb's website (www.pfandbriefbank.com/company/corporate-governance.html).

Consolidated Financial Statements

Income Statement

Income statement

in € million	Note	2021	2020[1)]
Net interest income	34	494	476
thereof: interest income from financial instruments not measured at fair value through profit or loss (IAS 1.82a)		1,160	1,198
Net fee and commission income	35	8	6
Net income from financial instruments at fair value through profit or loss (net income from fair value measurement)[2)]	36	10	-8
Net income from derecognition of financial instruments not measured at fair value through profit or loss (net income from realisations)[2)]	37	81	26
thereof: from financial assets at amortised cost		86	25
Net income from hedge accounting	38	-	4
Net other operating income	39	-2	22
Net income from allowances for credit losses on financial assets (net income from risk provisioning)[2)]	40	-81	-126
General and administrative expenses	41	-219	-204
Expenses from bank levies and similar dues	42	-29	-26
Net income from write-downs and write-ups of non-financial assets	43	-20	-19
Profit before tax		**242**	**151**
Income tax	44	-14	-30
Net income		**228**	**121**
attributable to: Shareholders of pbb		229	121
Non-controlling interests in equity		-1	-

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

[2)] Solely the condensed and parenthesised line item descriptions are used subsequently.

Earnings per share

in €	Note	2021	2020[1)]
Basic earnings per share	46	1.58	0.77
Diluted earnings per share	46	1.58	0.77

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Statement of Comprehensive Income

Statement of comprehensive income

in € million	2021	2020[1)]
Net income	**228**	**121**
Accumulated other comprehensive income	-7	-27
Items that will not be reclassified to profit or loss, net of tax	26	-3
Gains/losses on pension commitments, before tax	16	-4
Income tax relating to items that will not be reclassified to profit or loss	10	1
Items that may be reclassified to profit or loss, net of tax	-33	-24
Gains/losses on cash flow hedge accounting, before tax	-9	-7
gains/losses reclassified to profit or loss	-9	-7
Gains/losses on financial assets at fair value through other comprehensive income, before tax	-24	-17
unrealised gains/losses	-24	-17
Income tax relating to items that may be reclassified to profit or loss	-	-
Comprehensive income for the period	**221**	**94**
attributable to: Shareholders	222	94
Non-controlling interests in equity	-1	-

1) Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Statement of Financial Position

Assets

in € million	Note	31.12.2021	31.12.2020[1]	1.1.2020[1]
Cash reserve	9, 47	6,607	5,376	1,141
Financial assets at fair value through profit or loss	10, 48	1,180	1,368	1,306
Positive fair values of stand-alone derivatives		540	737	717
Debt securities		132	134	130
Loans and advances to customers		505	494	456
Shares in investment funds qualified as debt instruments		3	3	3
Financial assets at fair value through other comprehensive income	11, 49	1,258	1,529	1,696
Debt securities		943	1,384	1,325
Loans and advances to other banks		-	-	15
Loans and advances to customers		315	145	356
Financial assets at amortised cost after credit loss allowances	12, 50	48,087	48,669	50,205
Financial assets at amortised cost before credit loss allowances		48,429	48,913	50,332
Debt securities		6,893	7,481	7,679
Loans and advances to other banks		2,646	1,874	2,356
Loans and advances to customers		38,710	39,358	40,089
Claims from finance lease agreements		180	200	208
Credit loss allowances on financial assets at amortised cost		-342	-244	-127
Positive fair values of hedge accounting derivatives	13, 51	1,009	1,651	2,199
Valuation adjustment from porfolio hedge accounting (assets)	14, 52	5	27	19
Tangible assets	15, 53	32	38	45
Intangible assets	16, 54	42	40	39
Other assets	17	50	47	41
Current income tax assets	27	3	19	22
Deferred income tax assets	27	129	95	90
Total assets		**58,402**	**58,859**	**56,803**

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Liabilities and equity

in € million	Note	31.12.2021	31.12.2020[1]	1.1.2020[1]
Financial liabilities at fair value through profit or loss	18, 56	559	596	762
Negative fair values of stand-alone derivatives		559	596	762
Financial liabilities measured at amortised cost	19, 57	52,656	52,570	49,741
Liabilities to other banks		10,633	9,844	4,195
Liabilities to customers		20,100	22,583	23,985
Bearer bonds		21,268	19,457	20,858
Subordinated liabilities		655	686	703
Negative fair values of hedge accounting derivatives	20, 58	1,372	1,920	2,562
Valuation adjustment from porfolio hedge accounting (liabilities)	21, 59	70	137	81
Provisions	22, 60	231	246	263
Other liabilities	23	55	62	130
Current income tax liabilities	27	34	34	47
Liabilities		**54,977**	**55,565**	**53,586**
Equity attributable to the shareholders of pbb	24, 63	3,124	2,996	2,919
Subscribed capital		380	380	380
Additional paid-in capital		1,637	1,637	1,637
Retained earnings		1,202	1,067	963
Accumulated other comprehensive income		-95	-88	-61
Additional equity instruments (AT1)		298	298	298
Non-controlling interest in equity		3	-	-
Equity		**3,425**	**3,294**	**3,217**
Total equity and liabilities		**58,402**	**58,859**	**56,803**

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Statement of Changes in Equity

Statement of changes in equity

in € million	Subscribed capital	Additional paid-in capital	Retained earnings	Pension commit-ments	Cash flow hedge accounting	Financial assets at fair value through OCI	Additional equity instruments (AT1 capital)	Non-controlling interest	**Equity**
	Equity attributable to the shareholders								
				Accumulated other comprehensive income (OCI) from:					
Balance as at 31.12.2019	**380**	**1,637**	**966**	**-99**	**-11**	**65**	**298**	**-**	**3,236**
Adjustments due to IAS 8.42[1)]	-	-	-3	-35	-4	23	-	-	-19
Balance at 1.1.2020	**380**	**1,637**	**963**	**-134**	**-15**	**88**	**298**	**-**	**3,217**
Payment on AT1 capital	-	-	-17	-	-	-	-	-	-17
Comprehensive income for the period	-	-	121	-3	-7	-17	-	-	94
Net income	-	-	121	-	-	-	-	-	121
OCI for the period	-	-	-	-3	-7	-17	-	-	-27
Balance at 31.12.2020	**380**	**1,637**	**1,067**	**-137**	**-22**	**71**	**298**	**-**	**3,294**
Balance at 1.1.2021	**380**	**1,637**	**1,067**	**-137**	**-22**	**71**	**298**	**-**	**3,294**
Sale of shares	-	-	1	-	-	-	-	4	5
Distribution	-	-	-78	-	-	-	-	-	-78
Payment on AT1 capital	-	-	-17	-	-	-	-	-	-17
Comprehensive income for the period	-	-	229	26	-6	-27	-	-1	221
Net income	-	-	229	-	-	-	-	-1	228
OCI for the period	-	-	-	26	-6	-27	-	-	-7
Balance at 31.12.2021	**380**	**1,637**	**1,202**	**-111**	**-28**	**44**	**298**	**3**	**3,425**

[1)] Details are disclosed in note “Consistency.

Statement of Cash Flows

Statement of cash flows[1]

in € million	2021	2020[2]
Net income/loss	**228**	**121**
Write-downs and depreciation on tangible and intangible assets	20	19
Write-downs, provisions for losses on, and write-ups of, financial assets at amortised cost	98	119
Impairment / Revaluation on Financial Instruments measured at Fair Value OCI	-	-
Result from the disposal of financial securities at amortised cost	5	-1
Result from the disposal of financial securities at fair value through other comprehensive income	1	-
Change in other non-cash positions	158	-226
Other adjustments	-480	-446
Subtotal	**30**	**-414**
Change in assets and liabilities from operating activities after correction of non-cash components		
Increase in assets/decrease in liabilities (-)		
Decrease in assets/increase in liabilities (+)		
Financial instruments at fair value through profit or loss and positive/negative fair values of hedge accounting derivatives	77	-72
Financial assets at fair value through other comprehensive income	-178	210
Financial instruments at amortised cost (without payments in/of subordinated capital)	491	4,293
Other assets from operating activities	-	-4
Other liabilities from operating activities	-91	-155
Interest income received	1,554	1,740
Interest expense paid	-1,243	-1,365
Taxes on income paid/refund	-22	-46
Cash flow from operating activities	**618**	**4,187**
Proceeds from the sale of securities	750	443
Payments for the acquisition of securities	-	-344
Payments for the acquisition of tangible and intangible assets	-15	-13
Cash flow from investing activities	**735**	**86**
Proceeds from additional equity instruments (AT1)	1	-
Disbursement of dividends	-78	-
Payments in/of subordinated liabilities	-28	-16
Payments from Leasing Liabilities	-5	-5
Payment on AT1 capital	-17	-17
Change non-controlling interest	4	-
Sale of shares of consolidated subsidiaries	1	-
Cash flow from financing activities	**-122**	**-38**
Cash and cash equivalents at the end of the previous period	5,376	1,141
+/- Cash flow from operating activities	618	4,187
+/- Cash flow from investing activities	735	86
+/- Cash flow from financing activities	-122	-38
Cash and cash equivalents at the end of the period	**6,607**	**5,376**

[1] Explanations in Note “Notes to the Items in the Consolidated Statement of Cash Flows”.
[2] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Notes

1. General Information

Deutsche Pfandbriefbank AG (pbb), with its registered office in Munich, Germany, is a public limited company and a leading provider of commercial real estate finance and public investment finance. The Company is registered in the commercial register of the Munich local court (Amtsgericht München) under registration number HRB 41054; it is the parent company of Deutsche Pfandbriefbank Group (pbb Group). The address of the principal place of business is Parkring 28, 85748 Garching, Germany.

The financial statements are stated in euros, the presentation currency of pbb Group, and principally rounded to millions of Euro (€ million). Information is presented in accordance with the principle ofmateriality. Minor differences may occur regarding the figures and totals stated due to rounding. Items under € 500,000.00 are presented as zero respectively zero balances are denoted by a dash.

The Management Board of pbb prepared and authorised for these Consolidated Financial Statements for issue on 8 March 2022.

ACCOUNTING POLICIES

2. Principles

pbb has prepared the present Consolidated Financial Statements for the period ending 31 December 2021 in line with EC ordinance No. 1606/2002 of the European Parliament and Council of 19 July 2002 in accordance with International Financial Reporting Standards (IFRS). The IFRS are standards and interpretations adopted by the International Accounting Standards Board (IASB). These are the International Financial Reporting Standards (IFRS), the International Accounting Standards (IAS) and the interpretations of the IFRS Interpretations Committee (formerly IFRIC) respectively the former Standing Interpretations Committee (SIC); they are also based on the regulations of commercial law which are applicable in accordance with Section 315e (1) HGB (German Commercial Code).

The Consolidated Financial Statements are based on IFRS as adopted in European law by the European Commission as part of its endorsement process. With the exception of certain regulations on fair value hedge accounting for a portfolio hedge of interest rate risks in IAS 39 Financial Instruments: Recognition and Measurement, all the IFRS published by the IASB and required to be applied were fully endorsed by the European Union (EU). According to the option pursuant to IFRS 9.7.2.21 ppb Group still applies the requirements of IAS 39 for hedge accounting instead of the requirements in chapter 6 of IFRS 9. Within the framework of fair value hedge accounting for a portfolio hedge of interest rate risks, pbb Group applies a part of the exemptions permitted under European law. Therefore, the present consolidated financial statements comply with IFRS applicable in the EU, but not with IFRS as a whole as promulgated by the IASB.

In addition, the German Accounting Standards (Deutsche Rechnungslegungs Standards – DRS) published by the Accounting Standards Committee of Germany (Deutsche Rechnungslegungs Standards Committee – DRSC) have been taken into account provided they are not inconsistent with the IFRS.

Initially Adopted IFRS, Interpretations and Amendments in 2021
pbb Group implemented all standards and interpretations which had to be applied mandatorily and which had been endorsed into European law. However, pbb Group has occassionally

waived to disclose issues that are not relevant or not material to assure understandibility and information content in the present annual report.

pbb Group initially applied the following new and amended IFRS and published IFRIC in the financial year 2021:

- Amendments to IFRS 16: Leases COVID-19 Related Rent Concessions beyond 30 June 2021
- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 – Interest Rate Benchmark Reform (Phase 2)
- Amendment to IFRS 4 (Extension of the Temporary Exemption from Applying IFRS 9)

Amendments to IFRS 16: Leases COVID-19-Related Rent Concessions beyond 30 June 2021 The amendments grant lessees an exemption from the assessment as to whether rent concessions granted due to the COVID-19 pandemic constitute a lease modification. The amendments to IFRS 16 are not relevant to pbb Group, as pbb Group has not made use of rent concessions.

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 – Interest Rate Benchmark Reform (Phase 2) The objective of these amendments is to mitigate the effects on financial reporting resulting from the replacement of an existing reference interest rate by an alternative interest rate as at the replacement date. In particular, the amendments provide practical expedients in relation to changes that are required by the IBOR reform. In addition, recognised hedging relationships (hedge accounting) may be continued subject to an adjusted documentation despite a replacement of the reference interest rate. pbb Group expects that the Group may continue to recognise or designate the existing hedges of interest rate risk – even when replacing existing reference interest rates. These amendments did not have a significant impact on the consolidated financial statements in the financial year 2021. pbb Group does not expect any material consequences to occur in future from the amendments on the contracts concerned in case of a replacement of an existing reference interest rate.

Amendment to IFRS 4 (Extension of the Temporary Exemption from Applying IFRS 9) The amendments delay the prescribed expiry of the temporary exemptions from the application of IFRS 9 in IFRS 4 to financial years beginning on or after 1 January 2023. This practical expedient is not relevant for pbb Group as a financial institution. pbb Group has applied IFRS 9 since 1 January 2018.

Standards, interpretations and amendments endorsed by the EU but not yet effective

pbb Group does not intend to conduct early adoption of standards, interpretations and amendments that have been endorsed by the EU but are required to be applied only in subsequent financial years. The following standard or amendments were endorsed by the EU as at the reporting date, but its application was not yet required:

IFRS 17 Insurance Contracts; including Amendments to IFRS 17 IFRS 17 governs the principles applicable to the recognition, measurement, presentation and disclosures of insurance contracts. IFRS 17 is required to be applied for financial years beginning or after 1 January 2023. pbb Group currently does not expect any material effects, since it does not operate as an insurance provider. Upon the adoption into European law, IFRS 17 introduced an optional exemption with regard to the annual cohort requirement set out in IFRS 17.22. In line with the expected minor effects of the entire IFRS 17 on pbb Group, this exemption is also expected to not become relevant.

Amendments to IFRS 3, IAS 16, IAS 37 and Annual Improvements 2018-2020 The amendments comprise narrow-scope adjustments to three standards and the IASB's Annual Improvements project. IAS 16 refers to the recognition of proceeds received during the production/construction of an item of property, plant and equipment. The amendments to IAS 37 define the costs that have to be considered in the assessment of whether a contract is onerous. The amendments to IFRS 3 refer to a reference included in IFRS 3 to the Conceptual Framework that does not involve a change in the context of the rules governing the accounting for business combinations. The Annual Improvements project comprises clarifications as regards the wording, minor changes, overviews and conflicts between rules in standards. The amendments apply to annual periods beginning on or after 1 January 2022. Overall, these amendments are not expected to have material effects for pbb Group.

IFRS, Interpretations and Amendments issued but not yet endorsed by the EU
The following standards, interpretations or amendments have not yet been endorsed by the European Union at the balance sheet date:

Name	Publication	Initial application	Expected effects
Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current and Classification of Liabilties as Current or Non-current – Deferral of Effective Date	23.1.2020/ 15.7.2020	1.1.2023	The amendments to IAS 1 refer to the clarification that, as part of the classification of liabilities as current or non-current, the reporting entity's rights existing as at the reporting date have to be taken into account. The expectation of management as to whether such rights will be actually exercised should not be considered. If an extension right is subject to one or more conditions (e.g. covenants) which are, however, tested/reviewed only at a later date (after the reporting date), the decisive criterion is whether the conditions were met at the reporting date. Moreover, the IASB clarifies that terms and conditions of a loan agreement that – at the option of the creditor – may result in settlement of the liability in the entity's own equity instruments have to be taken into account in the classification, unless there is an equity instrument within the meaning of IAS 32 that has to be accounted for separately. pbb Group does not expect any material changes for the classification and presentation of liabilities in the statement of financial position, as they are already classified in line with their maturities.
Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2 – Disclosure of Accounting	12 February 2021	1 January 2023	The amendments to IAS 1 specify the extent to which accounting policies have to explained in the notes. In future, only material, rather than significant, accounting policies have to be explained. The application of these standard amendments, the notes may be reduced to a description of material accounting policies, which could lead to enhancing relevance and understandability of the financial statements.

Policies			
Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates	12 February 2021	1 January 2023	The amendments to IAS 8 newly introduce a definition of the term "accounting estimate". Accounting estimates are now defined as monetary amounts in financial statements that are subject to measurement uncertainty. The distinction made between accounting estimates and accounting policies is of importance since IAS 8 provides for different consequences for changes in estimates and in accounting policies. Changes in accounting policies have to be recognised retrospectively, while changes in estimates have to be recognised prospectively. The first-time application is not expected to have any material impact on pbb Group.
Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction	7 May 2021	1 January 2023	If assets and liabilities are recognised initially, deferred taxes do not have to be recorded as an exemption in case certain requirements are met. In accordance with the amendments to IAS 12, this exemption no longer applies to transactions that result in deductible and taxable temporary differences in the same amount upon initial recognition even if the other, previously applicable requirements are met. As a result of the amendments, deferred taxes have to be recognised for example on leases recognised by the lessee and on decommissioning or restoration obligations. The amendments are not expected to have a material impact on pbb Group.

Statement of compliance for the German Corporate Governance Code
Company's Management Board and the Supervisory Board published a statement of compliance for the German Corporate Governance Code according to section 161 AktG in this annual report as well as on pbb's website (http://www.pfandbriefbank.com/en/investors/mandatory-publications.html).

Combined Management Report
The combined management report meets the requirements of section 315 (1) and (2) HGB and DRS 20. It comprises fundamental information about the Group, a report on the economic position, a risk and opportunity report, a report on expected developments, commentary on pbb's unconsolidated Annual Financial Statements under HGB and supplemental information. The risk and opportunity report contains information which, under IFRS 7, is required to be disclosed.

3. Consistency

pbb Group applies its accounting policies on a consistent basis in accordance with the Conceptual Framework for Financial Reporting, as well as IAS 1 and IAS 8. The condensed interim consolidated financial statements as at 31 December 2021 were prepared using the same accounting policies applied for the consolidated financial statements as at 31 December 2020. except for the two matters below:

As a rule, pbb Group receives commitment fees for credit commitments that have not been disbursed at all, or have not been disbursed in full. To the extent that it is probable that a com-

mitted credit facility will be drawn upon, the commitment fees have to be deferred until the drawing date and have to be recognised on the drawing date as an integral part of income as defined by IFRS 9, based on constant effective interest rates over the expected credit term. Commitment fees have to be reported under net commission income if drawings from the credit are not expected. Previously, pbb Group had recorded the commitment fees in net interest income over the term of the commitment, rather than amortising them over the expected credit term. This accounting treatment, which affects the REF segment, was corrected in accordance with IAS 8.42.

Accounting for current and deferred taxes is consistent with the accounting for the transaction itself that triggers the tax effect, in accordance with IAS 12.57. If the carrying amount of a deferred tax amount changes due to a remeasurement (for example, due to tax rate changes or value adjustments), the change in the carrying amount has to be reported either through profit or loss or in other comprehensive income, in line with the existing recognition method. In general, the calculated temporary differences are reviewed as to whether they will reverse within a particular period and whether sufficient taxable profit will be available against which the temporary differences can be utilised. Deferred taxes are only recognised when the recognition criteria are met. Otherwise, the initially recognised deferred taxes will be eliminated again. In previous periods, pbb Group generally recorded the elimination of deferred income tax assets through profit or loss. pbb Group corrected this procedure in the first half of 2021 in accordance with IAS 8.42.

The following retrospective adjustments have been made in the balance sheet as of 1 January 2020 and as of 21 December 2020:

1.1.2020 **in € million**	**Loans and advances to customers; financial assets at cost**	**Retained earnings**	**Accumulated other comprehensive income; Pensio commitments**	**Accumulated other comprehensive income; Cashflow Hedge Accounting**	**Accumulated other comprehensive income; financial assets at fair value through OCI**
Before adjustment	40,108	966	-99	-11	65
Adjustment commitment fees	-19	-19	-	-	-
Adjustment deferred taxes	-	16	-35	-4	23
After adjustment	40,089	963	-134	-15	88

31.12.2020 in € million	Loans and advances to customers; financial assets at cost	Retained earnings	Accumulated other com-prehensive income; Pensio commit-ments	Accumulated other com-prehensive income; Cashflow Hedge Accounting	Accumulated other com-prehensive income; financial assets at fair value through OCI
Before adjustment	39,380	1,066	-102	-16	53
Adjustment commitment fees	-22	-22	-	-	-
Adjustment deferred taxes	-	23	-35	-6	18
After adjustment	39,358	1,067	-137	-22	71

The following retrospective adjustments in the income statement have been made:

1.1. –31.12.2021 in € million	Net interest income	Profit before Tax	Income taxes	Net income
Before adjustment	479	154	-37	117
Adjustment commitment fees	-3	-3	-	-3
Adjustment deferred taxes	-	-	7	7
After adjustment	476	151	-30	121

The statement of comprehensive income, the statement of changes in equity and the relevant disclosures in the Notes were adjusted accordingly. As a result of the adjustment to earnings after taxes, earnings per share increased from €0,74 to €0,77 for 2020

4. Consolidation

Number of subsidiaries/ entities[1)]	Fully consolidated subsidiaries		Associated entities and other investments		
	Total	Thereof: special purpose entities	Associated entities	Other investments	**Total**
1.1.2020	**4**	**-**	**1**	**1**	**6**
Additions	-	-	-	-	**-**
Disposals	-	-	-	-	**-**
31.12.2020	**4**	**-**	**1**	**1**	**6**
1.1.2021	**4**	**-**	**1**	**1**	**6**
Additions	-	-	-	-	**-**
Disposals	-	-	-	-	**-**
31.12.2021	**4**	**-**	**1**	**1**	**6**

[1)] pbb, subsidiaries, associated companies and other investments.

A subsidiary is an entity that is controlled by another entity. Control is deemed to exist if pbb has decision-making powers to manage relevant activities, has a right to significant returns from the subsidiary, and can use its decision-making powers to influence the amount of significant variable returns.

Structured entities are entities in which voting rights or similar rights are not the dominant factors in determining control, such as if the voting rights relate merely to administrative duties and the relevant activities are governed by contractual agreements.

There have not been any changes in the group of consolidated companies of pbb Group in 2021.

In the second quarter of 2021, the French government-owned financial institution Caisse des Dépôts et Consignations (CDC) acquired shares in pbb's previously wholly-owned subsidiary CAPVERIANT GmbH following the conclusion of an upfront arrangement. In addition, CDC increased the equity of CAPVERIANT GmbH by subscribing to a capital increase. As a result of the equity interest acquired by CDC in CAPVERIANT GmbH of approximately 28.57%, the shareholding of pbb in the subsidiary was reduced to approximately 71.43%.

Uniform Consolidated Accounting

The unconsolidated financial statements of the consolidated companies are incorporated in the consolidated financial statements of pbb using uniform accounting and measurement principles. Assets, liabilities, income, expenses and cash flows of the parent company and all of its subsidiaries are shown as if it is one single entity. Business relations within the group of consolidated companies are offset against each other for consolidation purposes.

Business relationships within the scope of consolidation are offset and interim results from intragroup transactions are eliminated.

5. Disclosures of Interests in Subsidiaries

These Consolidated Financial Statements include a list of shareholdings in the Note "Holdings of pbb" containing subsidiaries and other shareholdings. The financial year for all fully-consolidated companies is the calendar year. pbb Group does not have any subsidiaries which are not consolidated as of 31 December 2021 and 31 December 2020.

Significant Restrictions with respect to the Usability of Assets within the Group

Statutory, contractual or regulatory restrictions and protective rights of non-controlling interests may limit the Group in its ability to obtain access to the assets and to easily transfer them to respectively from another company or other companies and settle the Group's liabilities. As of the balance sheet date the Group had no significant interests over which it could not exert control.

A stake of approximately 28.57% in the subsidiary CAPVERIANT GmbH are held by another company, which, however, does not result in relevant restrictions with respect to obtaining and the realisation of assets and the settlement of liabilities. The consent of the co-shareholder or a majority of at least 77.5% of the voting rights in CAPVERIANT GmbH is required only with regard to particularly important measures, such as capital increases, reorganisations, and profit and loss transfer and control agreements at the level of CAPVERIANT GmbH. This means that pbb is dependent on the co-shareholder's cooperation in this respect.

6. Disclosures of Interests in Associates

There have not been significant participations in associated companies or joint arrangements retrospectively joint ventures as of 31 December 2021 and 31 December 2020. The particaptions which are immaterial from a pbb Group perspective are not included at equity in the group financial statements, but are accounted for at fair value through profit or loss (FVPL) according to IFRS 9.

7. Financial Instruments

According to IAS 32, a financial instrument is a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Recognition and Derecognition
pbb Group recognises a financial asset or a financial liability in its statement of financial position if a Group company becomes party to the contractual provisions of the financial instrument.

The purchases or sales of financial instruments are recognised on the trading date. Premiums and discounts are recognised in accordance with the accrual concept in the position net interest income. In accordance with the primary derecognition concept of IFRS 9, a financial asset has to be derecognised if all risks and rewards have substantially been transferred. If the main risks and rewards of ownership of the transferred financial asset are neither transferred nor retained, and if control over the transferred asset is retained, the Company has to recognise the asset to the extent of its continuing involvement. There are no transactions within pbb Group which result in partial derecognition due to a continuing involvement. Compensation for voluntary early repayment of receivables by customers is reported as net income from realisations for reasons of transparency.

In case of repos and synthetic securitisations the assets transferred do not qualify for derecognition because derecognition criteria of IFRS 9 are not met.

Collateral with the same counterparty and same conditions (e.g. ISDA master agreement) must be netted. Accordingly, only the net amount is disclosed.

Classification and Measurement of Financial Instruments
A financial asset or a financial liability shall be measured at its fair value at initial recognition plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

The amortised costs are the amount at which the financial asset or financial liability is measured at initial recognition minus the principal payments, plus or minus the cumulative amortisation using the modified effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any loss allowance.

Financial instruments at fair value are measured on the basis of stock market prices or other market prices, if existent (Level 1). If a price is not available from an active market, observable market prices from comparable financial instruments are used (Level 2). If prices from comparable financial instruments are not available, valuation models are used that are based on observable market parameters. If these parameters are not observable at the markets, the measurement of the financial assets is based on models with non-market-observable parameters (Level 3). The measurement models used are market standard models. A description of these models and the products is given in the Note “Fair Values of Financial Instruments”.

The best evidence of the fair value of a financial instrument at initial recognition is normally the transaction price, i.e. the fair value of the consideration given or received. If pbb Group determines that the fair value at initial recognition differs from the transaction price the financial instrument will be measured at fair value at initial recognition if that fair value is evidenced by a quoted price in an active market for an identical asset or liability (Level 1) or based on a valuation technique that uses only data from observable markets (Level 2). pbb Group records the difference as a gain or loss in these cases. In all other cases the difference between the fair value and the transaction price (so called day one profit) is deferred. In the financial years 2021 and 2020 there were no day one profits.

For the purposes of subsequent measurement, financial assets must be divided into the following three categories:

- at fair value through profit or loss (FVPL)
- at fair value through other comprehensive income (FVOCI)
- at amortised cost (AC)

The categorisation of financial assets depends on the entity’s business model for managing financial assets (business model criterion) and the contractual cash flow characteristics of the financial asset (contractual cash flow criterion) at initial recognition.

A financial asset shall be measured at amortised cost (AC) if both of the following conditions are met:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and.
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding.

A financial asset shall be measured at fair value through other comprehensive income (FVOCI) if both of the following conditions are met:

- the financial asset is held within a business model whose objective is achieved by both collecting cash flows and selling financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding.

A financial asset shall be measured at fair value through profit or loss (FVPL) unless it is measured at amortised cost or at fair value through other comprehensive income. However, an entity can make an irrevocable election at initial recognition for particular investments in equity instruments that would otherwise be measured at fair value through profit or loss to present subsequent changes in fair value in other comprehensive income. pbb Group holds equity instruments of an insignificant amount. These are measured at fair value through profit or loss.

In the first step the financial assets are categorised based on business model criterion. An entity's business model is determined at a level that reflects how groups of financial assets are managed together to achieve a particular business objective. Accordingly, this condition is not an instrument-by-instrument approach to classification and should be determined on a higher level of aggregation. For this purpose, the entity must consider all relevant evidence that is available at the date of assessment. Such relevant evidence includes, but is not limited to:

> how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel;
> the risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way in which those risks are managed;
> how managers of the business are compensated (for example, whether the compensation is based on the fair value of the assets managed or the contractual cash flows collected);
> the expected frequency, value and timing of sales in prior periods, the reasons for those sales and expectations about future sales activities.

Principally, pbb Group aggregates its financial assets for the determination of the business model criterion on the level of segments. However, deals to be syndicated form special portfolios in the segments Real Estate Finance (REF) and Public Investment (PIF). In addition, the Value Portfolio (VP) is divided in a portfolio with the intention to hold and in a portfolio with the intention to hold and sell. Furthermore, Consolidation & Adjustments contain the liquidity portfolio for which an intention to hold and sell exists in addition to portfolios with the intention to hold.

In line with IFRS 9B4.1.3A the business model may be hold to collect contractual cash flows even if the entity sells financial assets in specific situations. Such exceptions can be driven by an increased credit risk of the financial asset which amongst others pbb Group measures by the loan to value of the financing or a change to non-investment grade. Further exceptions are sales of financial assets with a short remaining maturity if the realized proceeds approximate the remaining cash flows. In addition, sales may be consistent with the business model hold to collect contractual cash flows if those sales are more than infrequent (even if significant in value) or insignificant in value either individually or aggregated (even if frequent). Amongst others, pbb Group sets the volume of sold assets in relation to the total volume of the portfolio to which the assets belong for the determination of significance.

pbb Group has to reclassify financial assets if it changes the business model for managing those financial assets. Such changes which are expected to be very infrequent are determined by the senior management as a result of externally or internally significant changes and externally demonstrable changes. Examples may be in the context of business combinations or shut downs of operations. There have not been reclassifications of financial assets in the years 2021 and 2020.

In the second step of the categorisation an entity has to classify a financial asset on the basis of the contractual cash flow characteristics (contractual cash flow criterion). For this, an entity shall assess whether contractual cash flows are solely payments of principal and interest on the principal amount outstanding. The principal is the fair value of the financial asset at initial recognition. Interest consists of consideration for the time value of money, for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks (for example, liquidity risk) and costs, as well as a profit margin. When assessing the contractual cash flows pbb Group also considers derivatives embedded in a host contract. For example, if leverage increases the volatility of the contractual cash flows the contractual cash flow criterion will not be fulfilled. Furthermore, for financings of structured entities without the right ofrecourse on specific assets of the borrower or payments from these assets has to be assessed whether pbb Group has primarily a loan risk or an investment risk. If there is primarily an investment risk but not primarily a loan risk the contractual cash flow criterion will not be fulfilled. pbb Group assesses this distinction on the basis of the loan to value at the date of the initial recognition of the financial asset. pbb Group does not hold any financial instruments with cash flows that are influenced by ESG (environment, social and governance) criteria

An entity may, at initial recognition, irrevocably designate a financial asset as measured at fair value through profit or loss if doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognising the resulting gains and losses on different bases (so called fair value option). pbb Group does not use the fair value option for financial assets.

Non derivative financial liabilities have to be measured at amortised cost, unless they are hold for trading purposes or are designated at fair value through profit or loss. As of 31 December 2021 and 31 December 2020 pbb Group has not issued compound financial instruments with multiple embedded derivatives.

The amount of change in the fair value of financial liabilities designated at fair value through profit or loss (fair value option) that is attributable to changes in credit risk of that liability shall be presented in other comprehensive income and the remaining amount of change in profit or loss. pbb Group does not have non-derivative financial liabilities measured at fair value through profit or loss and does not use the fair value option for financial liabilities. Derivatives have to be measured at fair value through profit or loss unless they are used as hedging instruments in the scope of cash flow hedge accounting.

According to IFRS 9 the non-derivative financial instruments of pbb Group are aggregated, classified and measured as follows:

- Segment Real Estate Finance (REF): Non-derivative financial instruments are principally measured at amortised cost (business model: financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows). The exceptions areFinancial assets or parts of financial assets, for which there is an intention to syndicate (business model: financial asset is neither held within a business model whose objective is to hold financial assets in order to collect contractual cash flows nor within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets). These have to be accounted for at fair value through profit or loss.

- Segment Public Investment Finance (PIF): Non-derivative financial instruments are principally measured at amortised cost (business model: financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows). Exceptions are: Financial assets or parts of financial assets, for which there is an intention to syndicate (business model: financial asset is neither held within a business model whose objective is to hold financial assets in order to collect contractual cash flows nor within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets). These have to be accounted for at fair value through profit or loss.
- Segment Value Portfolio (VP): Non-derivative financial instruments are principally measured at amortised cost (business model: financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows). Exceptions are:
  - Financial assets or parts of financial assets held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets. These are measured at fair value through other comprehensive income.
  - Financial assets which do not fulfill the contractual cash flow criterion and therefore have to be measured at fair value through profit or loss.
- Portfolios in Consolidation and Adjustments (C&A): Non-derivative financial instruments are principally measured at amortised cost (business model: financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows). Exceptions are:
  - Financial assets held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets. These financial assets of the liquidity portfolio are measured at fair value through other comprehensive income.

The European Market Infrastructure Regulation (EMIR) imposes a clearing obligation for standardised Over-The-Counter (OTC) derivatives. pbb uses Eurex Clearing as central clearing agent for derivatives. For Eurex cleared transactions, pbb applies on-balance sheet netting. On-balance sheet netting is applied for each currency, and comprises the carrying amounts of the derivatives as well as the margins calculated (and collected or credited) by Eurex Clearing. The net book values are disclosed under “positive fair values of hedge accounting derivatives” or “negative fair values of hedge accounting derivatives”.

In alignment with the customer the contractual cash flows of a financial instrument in the existing business may be renegotiated or otherwise modified. Such changes made to existing terms of a contractual relationship during the contract term are called modifications. Modifications may be market-driven commercial renegotiations or can be performed to avoid larger credit defaults. It is necessary to check whether the modification is significant or insignificant.

Significant modifications are substantial to the extent that they, in essence, constitute a new financial instrument. The modification can be significant due to qualitative (for example change of counterparty or of currency) or due to quantitative reasons. In case of significant modifications the old financial instrument has to be derecognized and a modified new financial asset has to be recognized as a new asset

In case of insignificant modifications the agreed amendments to the contractual cash flows have to be discounted and the difference between the present value of the modified contractual payments determined in this way and the carrying amount (present value of the contractual payments before modification) are recognized through profit or loss. In the years 2021 and 2020 the effects in the profit and loss statement from insignificant modifications were not material.

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

Impairment
The regulations regarding impairments in accordance with IFRS 9 are relevant for assets measured either at "amortised cost" or at "fair value through other comprehensive income" as well as for off-balance sheet obligations, such as loan commitments and financial guarantees. The rules do not have to be applied for equity instruments. An impairment is implied for financial assets measured at fair value through profit or loss at subsequent measurement. IFRS 9 contains a model according to which provisions for credit losses may be created upon initial recognition of the financial asset (or on the date when the Group becomes a contracting party of the loan commitment or financial guarantee) on the basis of credit losses expected at that time. According to IFRS 9 this is an unbiased and probability-weighted amount that is determined by evaluation of a range of possible outcomes and scenarios. IFRS 9 clarifies that this is a probability weighted average and not the most probable amount.

Upon initial recognition, the impairments in lending business are based on expected credit losses within the following twelve months (so-called stage 1). The 12-months expected credit loss is part of the lifetime expected credit losses and corresponds to the expected credit losses from defaults that may occur for the financial instrument within twelve months after balance sheet date. In case of a significant increase in the financial asset's credit risk within the context of subsequent measurement (stage 2) or in case of a credit impairment (stage 3), the impairment has to reflect the lifetime expected credit losses. pbb Group does not apply the simplified approach for loans from lease agreements but also differentiates these into the impairment stage 1 and 2.

The same definition of default is used for IFRS 9 as for regulatory purposes. For this a default is defined if

- it is unlikely that the borrower can fully fulfil its payment obligations, or
- the borrower has material past dues of more than 90 days.

In the 2021 financial year, a new regulatory definition of default introduced by the European Banking Authority had to be applied. The new definition, which – among other things – clarifies that default has occurred in case of a payment arrears of more than 90 days and in case of at least 1% of the risk exposures recognised in the balance sheet, did not result in any transfers to level 3 within pbb Group.pbb

Group determines the expected credit losses on an individual basis.

pbb Group developed check criteria for the allocation to the three impairment stages of IFRS 9 which is very closely linked to the methods and instruments for credit and risk monitoring. In addition, the practice of credit risk management leads to an intensification of supervision with increasing impairment stage. Each financial asset which does not have to be measured at fair value through profit or loss has to be allocated to stage 1 at initial recognition if it is not credit-impaired. A financial asset moves to stage 2 if the credit risk has increased significantly but is not credit-impaired. This is the case if

- as rebuttable presumption there is a past due of more than 30 days; or
- the financial asset is non-investment grade and the multi-year probability of default at balance sheet date exceeds the multi-year probability of default at initial recognition of the financial asset by a factor of at least 2.5.
- any forbearance measures were implemented for a performing financial instrument.

The criterion of 30 days past due can be rebutted for example in the case of so called technical past dues. This can be the case if the borrower transfers the amount owed to a wrong account and corrects this at short notice. Also the forbearance criterion may be rebutted in justified individual cases.

Counterparties of loans and securities which credit has deteriorated compared with the date of initial recognition but which still have an investment grade rating and which do not have a payment past due of more than 30 days are assessed as very low-risk in the allocation to the impairment stages.

pbb Group made the change from Stage 1 to Stage 2 also when the change resulted from the current COVID-19-driven economic recession. If the credit risk of a financial assets with a significantly increased credit risk has not significantly increased any further at balance sheet date compared to the date of initial recognition the financial asset will move back to stage 1.

A financial asset will have to be moved to stage 3 if it is credit-impaired. A deal will be credit-impaired if one or more events that have detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired include observable data about the following events:

- significant financial difficulty of the issuer or the borrower;
- a breach of contract, such as a default or past due event;
- pbb Group, for economic reasons or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower concessions that pbb Group would not otherwise consider;
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganization;
- the disappearance of an active market for that financial asset because of financial difficulties;
- the purchase or origination of a financial asset at a deep discount that reflects the incurred credit losses.

For purchased or originated credit-impaired financial assets (POCI) only the cumulative changes in lifetime expected credit losses since initial recognition have to be recognised as a loss allowance at balance sheet date. For such financial assets expected credit losses shall be discounted using the credit-adjusted effective interest rate determined at initial recognition. The credit-adjusted effective interest rate has to be applied to the amortised cost from initial recognition. The recognition of interest income will have to be determined this way for the entire maturity also if the borrower recovers. The interest income is attributed to the POCI-asset, received repayments have to be recognised as repayments. pbb Group did not purchase or originate credit-impaired financial assets as of 31 December 2021 and as of 31 December 2020.

pbb Group principally uses a model-based approach for determining the amount of expected credit losses. Regulatory risk parameters (probability of default/PD, loss given default/LGD) and contract information, for example the contractually agreed cash flows, are used as a basis for determining the amount of credit losses of the stage 1 and stage 2 financial instruments. The exposure size results from the comparison of the contractually agreed cash flows and the expected cash flows. The risk parameters listed above are linked to the exposure size to determine the expected losses. In addition expectations about prepayments (so called prepayment rates), expected prolongations of loans (so called prolongation rates) and expected drawings of undrawn parts of a commitment (so called credit conversion factor/CCF) are considered in the expected cash flows. The risk parameter PD is determined for each borrower with the aid of customer specific rating methods. Several customer specific risk factor for example the debt ratio, return indicators and similar quantitative indicators are input factors of the rating methods. The risk parameter LGD is determined with the aid of specific LGD models in which especially expected recovery ratios from the disposal of collaterals or other parts of the asset, the transaction specific ratio of current collaterals and the book value of the loan as well as the expected time till receipt of payments are material input factors. These PD rating methods and LGD models are also methods which pbb Group uses as an approach for risk assessment and risk controlling.

The regulatory risk parameters are transformed adequately so that the requirements of IFRS 9 are fulfilled. These include the deduction of conservative adjustments which are used for regulatory purposes, the consideration of macro-economic factors for the purpose of the so called point in time transformation and the transition from the regulatory discount rate to the effective interest rate required by IFRS 9. Particularly the transformations ensure that the risk parameters are unbiased. Historic data about rating migration together with forecasts of macro-economic developments (for example the unemployment rate, the economic growth per country, 5-year swap rate per currency and – for real estate financings – the development of collateral market values differentiated by object types and regions) are used for the determination of multi-year probabilities of default. For this information according to the type of customer are used. pbb Group forecasts relevant indicators on the basis of internal analyses and externally available data. The interest income is calculated by applying the effective interest rate on the financial asset, therefore on the gross book value (book value before risk provision).

In determining point-in-time default probabilities, macroeconomic projections issued, for example, by the ECB, other central banks and economic research institutions in relation to the unemployment rate and the gross domestic product are used. Only the forecast for the year 2021 is used for transactions included in Stage 1 allowances. The forecasts until the year 2024 are used for transactions of Stage 2 allowances. As from 2025, a model for convergence to the long-term average will be applied.

pbb Group has established a limited adjustment of expected credit losses in form of a management overlay as at 31 December 2021 in order to properly reflect the prevailing risk situation of clients during the COVID-19 pandemic. The management overlay is described in detail in the Note “Financial assets at amortised cost after credit loss allowances (including claims from finance lease agreements)”.

The expected credit losses of impairment stage 3 are determined on the basis of individual cash flows with several probability-weighted scenarios. The amount of risk provision equals the difference between the carrying amount of the asset and the present value of the expected future cash flows. The latter is calculated on the basis of the initial effective interest rate. The expected future cash flows take into account the marketability of collaterals for example charges on the land/mortgages. The interest income is calculated by applying the effective interest rate to the amortised cost of the financial asset.

A financial asset has to be written-off by using the existing booked impairment if a recovery is not feasible based on adequate judgement. This is generally the case if in the process of a realization of the collateral a residual claim remains and if it is foreseeable that no further amounts are expected from the borrower (for example due to insolvency/lack of funds). pbb groups attempts to collect the remaining claim completely or at least partly by enforcement activities for written-off loans in justified exceptions.

Hedge Accounting

As long as regulations on accounting for macro hedges have not yet been adopted, the IASB provides the possibility by an option to apply the former rules pursuant to IAS 39. For hedge accounting pbb Group exercised the accounting option and retains the current regulation of IAS 39. The accounting of hedge relationships is shown in the section “Notes to Derivative Transactions and Hedged Items”.

Disclosure/Notes

IFRS 7 (Financial Instruments: Disclosures and IFRS 13 (Fair Value Measurement) required disclosures according to classes of financial instruments. pbb Group mainly defined the measurement categories according to IFRS 9– sub divided in the products loans and advances and debt securities as well as liabilities to other banks, liabilities to customers, bearer bonds and subordinated liabilities – irrevocable loan commitments, financial guarantees, hedging derivatives and cash reserve as well as claims from finance lease agreements.

Specific disclosures required by IFRS 7 are shown in the risk and opportunity report for example about credit risk, market risk and liquidity risk.

8. Leases

According to IFRS 16, a lease is a contract that conveys the right to use an asset for a period of time in exchange for consideration.

pbb Group as a Lessor
Upon initial recognition of a lease, lessees recognise a lease liability as well as a right-of-use asset. The lease liability is discounted using the present value of future lease payments; simultaneously, lessees recognise a right-of-use asset in the amount of the discounted lease liability. Discounting is based on the interest rate underlying the lease or, if this rate is not readily available, on the incremental borrowing rate of pbb Group for the respective lease. Usually, right-of-use assets are depreciated on a straight-line basis over the projected term of the lease. All payment obligations of the lessee resulting from leases are subsequently measured at amortised cost using the effective interest method. The lease liability is remeasured when the future lease payments are modified due to a change in the index rate, or when pbb Group changes its assessment as regards the exercise of extension or termination options. In case of such a remeasurement of the lease liability, the carrying amount of the right-of-use asset is also adjusted accordingly.

pbb Group discloses right-of-use assets in ‘tangible assets’, while lease liabilities are disclosed under ‘other liabilities’. Depreciation of right-of-use assets is recognised in the note on ‘net gains and losses from write-downs and write-ups of non-financial assets’. Interest expenses resulting from lease liabilities are disclosed in ‘net interest income’.

pbb Group as a Lessee
As a lessor, pbb Group has entered into finance leases only. Regarding finance leases, substantially all risks and rewards incidental to ownership of the leased asset are transferred to the lessee. The lessor recognises receivables in the amount of the net investment value. Lease payments received are divided into an interest portion, which is recognised through profit or loss, and a principal portion.

pbb Group discloses loans and advances from finance leases under financial assets at amortised cost. Interest income from finance leases is disclosed in ‘net interest income’.

9. Cash Reserve

Cash reserve contains balances with central banks which are measured at cost.

10. Financial Assets at Fair Value through Profit or Loss

The financial assets at fair value through profit or loss consist of positive fair values of stand-alone derivatives and the following non-derivative financial assets:

> Loans and advances, debt securities, shares in investment funds and in entities which are not measured at-equity due to their immateriality which do not fulfil the contractual cash flow criterion.
> Parts of financial assets, for which there is an intention to syndicate.

Financial assets of this balance sheet position are measured at fair value. Changes of the fair value within a period affect profit or loss in the line item net income from fair value measurement of the income statement. The payments and amortisation of interests from this position are shown in net interest income.

11. Financial Assets at Fair Value through Other Comprehensive Income

The position financial assets at fair value through other comprehensive income consists of loans and advances as well as securities of the measurement category at fair value through other comprehensive income. These are non-derivative financial assets which fulfil the contractual cash flow criterion of IFRS 9 and which are held within a business model whose objective is achieved by both collecting cash flows and selling financial assets. Parts of the debt securities and loans and advances of the Value Portfolio and Consolidation & Adjustment fulfil these criteria at pbb Group.

Financial assets of this balance sheet position are measured at fair value. Changes of the fair value within a period are shown in accumulated other comprehensive income of equity without affecting profit or loss. The payments and amortisation of interests from these positions are shown in net interest income. Impairments of all three stages according to IFRS 9 are shown in net income from risk provisioning of the income statement and in accumulated other comprehensive income in the statement of financial position. Gains or losses from derecognition of financial assets measured at fair value through other comprehensive income are shown in net income from realisations.

12. Financial Assets at Amortised Cost after Credit Loss Allowances

The position financial assets at amortised cost after credit loss allowances contains loans and advances as well as securities of the measurement category at amortised cost. These are non-derivative financial assets which fulfil the contractual cash flow criterion of IFRS 9 and which are held within a business model whose objective is to hold financial assets in order to collect contractual cash flows. At pbb Group, debt securities and loans and advances of the segments Real Estate Finance and Public Investment Finance fulfil these criteria unless they are intended for syndicated financing. Moreover, parts of the Value Portfolio and of Consolidation & Adjustments have to be recognised at amortised cost when the cash flow criterion is fulfilled and they are held as part of a business model whose objective is to collect contractual cash flows.

Financial assets of this balance sheet position are measured at amortised cost. Interest income and expenses from this position is shown in net interest income. Impairments of all three stages according to IFRS 9 are shown in net income from risk provisioning of income statement. The assets are shown before and after impairments in the income of financial position. Gains or losses from derecognition of financial assets measured at fair value through other comprehensive income are shown in net income from realisations.

13. Positive Fair Values of Hedge Accounting Derivatives

The position positive fair values of hedge accounting derivatives contains the fair value of derivatives which are subject to hedge accounting and which are positive. As pbb Group does not designate derivatives in cash flow hedge accounting anymore the position only includes derivatives of the micro fair value hedge accounting and of the portfolio hedge of interest rate risks to a lesser extent, currency risks. These derivatives are measured at fair value. Changes of the fair value within a period affect profit or loss and are disclosed in the position net income from hedge accounting in the income statement. The interest payments and amortisations of these positions are shown in net interest income.

14. Valuation Adjustment from Portfolio Hedge Accounting (Assets)

The position valuation adjustment form portfolio hedge accounting (assets) contains the fair values subject to the hedged risks in the hedged cash flows of the portfolios of hedged items on the asset side. In the context of portfolio hedge accounting interest rate risks from loans and advances as well as from liabilities are hedged on a portfolio basis.

15. Tangible Assets

Tangible assets are generally measured at cost of purchase or cost of production. The carrying amounts are depreciated on a straight-line basis in accordance with the expected useful lives of the assets. In addition, tangible assets are tested at least annually for impairment. If the value of tangible assets has impaired, an impairment loss is recognised in profit or loss. If the reasons for the impairment no longer exist, an amount not exceeding amortised cost or cost of production is reversed through profit or loss. For fixtures in rental buildings calculations are based on the term of the contract, taking into account any extensions options if this term is shorter than the normal useful economic life.

The normal useful economic life amounts to:
- Fixture in rental buildings: 5-15 years
- IT equipment (broad sense): 3-5 years
- Other operating equipment: 3-25 years

Subsequent cost of purchase or costs of conversion are capitalised if an additional economic benefit is generated for the Company. Maintenance expenses of tangible assets are recognised in profit or loss of the financial year in which they arose.

Right-of-use assets from leasing are disclosed in “tangible assets”. The accounting of the right-of-assets is described in the note “leases”.

16. Intangible Assets

Purchased and internally generated software are the main items recognised as intangible assets. Goodwill, brand names and customer relations are not capitalised.

Software is an intangible asset with a finite useful life. Purchased software is measured at the amortised purchase cost. pbb Group capitalises internally generated software if it is probable that future economic benefits is generated for the Group and the expenses can be measured reliably. Expenses eligible for the capitalisation of internally generated software include external, directly attributable costs of materials and services as well as personnel expenses for employees directly associated with the creation of software used by the Company. Software is amortised on a straight-line basis over expected useful lives of three to eight years. In addition,

intangible assets with a finite useful life are tested for impairment annually or whenever there is an indication that the intangible asset may be impaired or its useful life has reduced.

17. Other Assets

Other assets mainly comprise the collaterals pledged for the banking levy. The collaterals are accounted for at amortised cost.

18. Financial Liabilities at Fair Value through Profit or Loss

The financial liabilities at fair value through profit or loss contain the negative fair values of stand-alone derivatives. Financial liabilities of this balance sheet position are measured at fair value. Changes of the fair value within a period affect profit or loss in the line item net income from fair value measurement of the income statement. The payments and amortisation of interests from this position are shown in net interest income.

19. Financial Liabilities at Amortised Cost

The position financial liabilities at amortised cost consists of all non-derivative financial liabilities. Financial liabilities of this balance sheet position are measured at amortised cost. Interest income and expenses from this position is shown in net interest income. Gains or losses from derecognition of financial liabilities measured at amortised cost are shown in net income from realisations. Such derecognitions may result from prepayments of borrowers.

Amongst others the position financial liabilities at amortised cost contains subordinated liabilities. In the event of insolvency or liquidation subordinated liabilities may only be repaid after all non-subordinated creditors have been satisfied. For some instruments of subordinated liabilities the holders participate in any net loss or unappropriate retained earnings. In addition, the interest entitlement can be ceased or reduced under specific conditions. For other instruments the interest payment ceases only in case of a net loss respectively unappropriate retained earnings which can be recovered depending on the structuring.

Pursuant to IAS 32 the subordinated capital instruments issued by companies of pbb Group were classified as financial liabilities or equity instruments in accordance with the substance of the contractual arrangement and the definitions of a financial liability and an equity instrument.

20. Negative Fair Values of Hedge Accounting Derivatives

The position negative fair values of hedge accounting derivatives contains the fair value of derivatives which are subject to hedge accounting and which are negative. As pbb Group does not designate derivatives in cash flow hedge accounting anymore the position only includes derivatives of the micro fair value hedge accounting and of the portfolio hedge of interest rate risks and, to a lesser extent, currency risks. These derivatives are measured at fair value. Changes of the fair value within a period affect profit or loss and are disclosed in the position net income from hedge accounting in the income statement. The interest payments and amortisations of these positions are shown in net interest income.

21. Valuation Adjustment from Portfolio Hedge Accounting (Liabilities)

The position valuation adjustment form portfolio hedge accounting (liabilities) contains the fair values subject to the hedged risks in the hedged cash flows of the portfolios of hedged items of the liability side. In the context of portfolio hedge accounting interest rate risks from loans and advances as well as from liabilities are hedged on a portfolio basis.

22. Provisions

A provision is a liability of uncertain timing or amount. A provision shall be recognised when an entity has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. According to IAS 37.15 in rare cases it is not clear whether there is a present obligation. In these cases a past event is deemed to give rise to a present obligation if, taking into account of all available evidence, it is more likely than not that a present obligation exists at the end of the reporting period. In rare cases, for example in a law suit, it may be disputed whether certain events have occurred or whether those events result in a present obligation. In such a case, pbb determines whether a present obligation exists at the end of the reporting period by taking into account all available evidence, including, for example, the opinion of experts.

Under IAS 37.36 et seq., the best estimate is used for measuring provisions for contingent liabilities and contingent losses attributable to pending transactions. Long-term provisions are generally discounted with an interest rate that reflects the current assessments of the time value of money and the risks specific to the liability and if the interest rate is positive.

Provisions for commitments and guarantees given are booked on the basis of impairment rules of IFRS 9 and disclosed under provisions.

Provisions for defined benefit plans are calculated on the basis of actuarial reports in accordance with IAS 19. They are measured using the projected unit credit method. The amount of the provision equals the so-called net defined benefit liability which is the difference between the present value of the defined benefit obligation and the fair value of plan assets. pbb has concluded plan assets in the form of a qualifying insurance policy to hedge parts of the risk from the defined benefit obligations. The reinsurance is pledged to the plan beneficiaries.

The determination of the net defined benefit liability is based on demographic and financial actuarial assumptions. A demographic assumption for example is the mortality for which pbb uses guidance tables. For financial actuarial assumptions the discount rate has the greatest effect on the amount of defined benefit liability. The interest rate used for the measurement is determined by reference to market yields at the end of the reporting period on high-quality, fixed-interest corporate bonds.

Net interest on the defined benefit liability is determined by multiplying the defined benefit liability with the discount rate. The determination is done at the beginning of the financial year taking into account any changes in the net defined benefit liability as a result of contribution and benefit payments during the period. Net interest on defined benefit liability are shown together with all other effects on income statement from the defined benefit obligations and the plan assets in the position pension expenses and related employee benefit costs in general and administrative expenses.

Remeasurements of the net defined benefit liability result from actuarial gains and losses and the return on plan assets excluding amounts included in net interest on the net defined benefit liability. Remeasurements of the net defined benefit liability are shown in equity in the position profit/losses from pension obligations. Changes of remeasurements of the net defined benefit

liability within a period are shown as a component of the statement of comprehensive income. Actuarial gains and losses result from increases or decreases in the present value of the defined benefit obligation due to changes of actuarial assumptions and experience adjustments. Changes of the discount rate usually have the biggest effect on the actuarial gains and losses.

Along with other German financial institutions, pbb Group is a member of the pension fund BVV Versorgungskasse des Bankgewerbes e. V. ("BVV"). Both pbb Group as an employer and the eligible employees make regular contributions to the BVV pension schemes. BVV insurance tariffs are calculated and designed to provide fixed pension payments, plus profit participations. Every BVV member entity has a subsidiary responsibility for the pension claims of its eligible employees. pbb Group classifies the BVV pension scheme as a defined benefit plan, but discloses it as a defined contribution plan for accounting purposes because the information available is not sufficient to recognise it as a defined benefit plan. pbb Group considers the risk of becoming liable to pension obligations due to its subsidiary responsibility as very remote, and does not recognise any provisions in this respect.

23. Other Liabilities

Accruals are one position in other liabilities. This also includes short-term liabilities to employees, for instance flexitime credits and vacation entitlements. The accrued liabilities are recognised at the amount likely to be utilised. If the obligations listed at this note cannot be quantified precisely on the balance sheet date and if the criteria specified in IAS 37 for recognising provisions are satisfied, these items have to be disclosed as provisions. Leasing liabilities are a further position in Other Liabilities whose accounting is described in the note "leases".

24. Equity

The equity includes the equity attributable to the shareholders and the additional equity instruments (AT1 capital). The equity attributable to the shareholders consists of the subscribed capital, additional paid-in capital, retained earnings, consolidated profit and accumulated other comprehensive income. The accumulated other comprehensive income contains the reserves for remeasurements of defined benefit commitments (gains/losses from pension obligations), for cash flow hedge accounting and for financial assets at fair value through other comprehensive income (FVOCI).

The AT1 capital is classified as equity since there is neither an obligation to repay the capital nor is there an obligation for ongoing debt service. The transaction costs directly attributable to the issue of the AT 1 capital and paid coupons are deducted directly from equity.

The participation of Caisse des Dépôts et Consignation (CDC) in CAPVERIANT GmbH results in non-controlling interests.

25. Share-based Payment

Since the financial year 2016 in line with the German Regulation of Remuneration in Financial Institutions (Institutsvergütungsverordnung – InstVergV), the payout structure of pbb Group's performance-related remuneration for members of the Management Boad and certain employees whose services hase a significant influence on the overall risk profile of pbb Group is divided into a disbursement portion and a so-called deferral portion. 50% of the payout portion is paid out in cash in the following financial year. The remaining 50% of the payout portion is economically influenced by the performance of pbb's share price and is paid out after a holding period. The deferral period for the deferral portion is three years or five years. If the deferred remuneration components become an entitlement, half of the respective deferral portion is paid out in cash. The other half is in turn economically influenced by the performance of pbb's share price and is also paid out after the expiry of a holding period.

The aforementioned deferral portion of the variable remuneration which are influenced in financial terms by the development of the pbb share price, represents share-based remuneration. This share-based payment does not represent an option programme for physical shares, but rather for virtual shares where the amount set accordingly is converted into an equivalent number of virtual shares. This equivalent number corresponds to the number of virtual shares granted in the reporting period. The calculation of the number of virtual shares is based on the average Xetra closing price of the pbb share in February of the year subsequent to the financial year for which the variable remuneration is granted (subscription price). The resulting number of virtual shares is automatically converted into a cash amount after a holding period of one year, and paid out. In the year of payment, these virtual shares are presented as "exercised in the reporting period". The conversion is based on the average Xetra closing price of the pbb share in February of the disbursement year (disbursement price). Therefore, half of the variable remuneration of the employees concerned is linked to the performance of the pbb share price as part of the sustainability component.

The share-based remuneration may be forfeited after granting if the beneficiary was significantly involved in or responsible for conduct that led to significant losses or a significant regulatory sanction for the institution, or if he or she seriously violated relevant external or internal regulations regarding suitability and conduct (§§ 18 (5), 20 IVV).

When, in the context of share-based payment, the service is provided by the beneficiary, the resulting liability of pbb Group is recognised at fair value through profit or loss. The fair value of the liability is remeasured as at each reporting date, taking into account pbb’s share price, until the liability is settled, with all changes in fair value being recognised in profit or loss. The volume of share-based payment is disclosed in Note “Related parties disclosures”.

26. Currency Translation

Currency translation is carried out in accordance with the regulations of IAS 21. On the balance sheet date, monetary items in a foreign currency are translated into the functional currency. The reporting currency is Euro. Non-monetary items which were stated in a foreign currency using historical cost of purchase are measured using the exchange rate applicable at date of purchase.

Income and expenses attributable to currency translation are generally recognised in profit or loss in net other operating income/expenses.

All entities of the Group have Euro as the functional currency. Therefore, the group of consolidated companies does not include any companies from hyperinflationary countries.

27. Income Taxes

Income taxes are accounted for and measured pursuant to IAS 12 and according to IFRIC 23. Apart from the exceptions defined in the standard, deferred taxes are calculated for all temporary differences between the IFRS values and the tax values (balance sheet method). Deferred tax assets arising from non-utilised losses carried forward, interest assets carried forward and tax credits are recognised if required in accordance with IAS 12.34 et seq.

Deferred taxes are calculated using the national tax rates which are expected at the time the differences are settled, as the concept of deferred taxes is based on the presentation of future tax assets or tax liabilities (liability method). Changes in tax rates have been taken into account.

If it is unlikely that the amounts disclosed in pbb’s tax declarations will be realised (uncertain tax positions), tax liabilities are recognised. The liability amount is derived as being the best possible estimate of the expected tax payment (expected amount or most likely amount of tax uncertainty). Tax claims from uncertain tax positions are recognised if they will likely be realised.

28. Non-current Assets Held for Sale

In accordance with IFRS 5, a non-current asset or disposal group must be classified as held for sale if the related carrying amount is primarily realised by a disposal transaction and not by continued use. To reclassify an asset as held for sale, certain conditions must be met on a cumulative basis. Above all, there must be a specific intention to sell, the asset must be immediately available and the disposal must be highly probable. As at 31 December 2021 and at 31 December 2020 pbb Group did not own any assets held for sale.

29. Judgements and estimations

When preparing the financial statements, pbb Group makes future-related judgements as well as estimations, which may carry a considerable risk of a major change to the disclosed assets and liabilities becoming necessary during the next financial year. The assumptions and parameters underlying the estimates to be made are based on the exercise of appropriate judgement.

Going-Concern
The Consolidated Financial Statements of pbb are based on the judgement of going-concern. The conditions of going-concern including those arising from the COVID-19 are described in the report on expected developments.

Classification of Financial Instruments (Business model criteria)
For measurement purposes the financial assets have to be classified into the three measurement categories at fair value through profit or loss, at fair value through other comprehensive income and at amortised cost. The classification depends amongst others on the contractual cash flow criterion. The assessment of this criterion is based on judgements which are described in the note "Financial Instruments". For example, this relates to the assessment of the intention to hold financial assets in the future.

Allowances
pbb shall recognise a loss allowance for expected credit losses on a financial asset that is measured at amortised cost or at fair value through other comprehensive income, a lease receivable or specific loan commitments and financial guarantee contracts. For this reasonable and supportable information, including forward-looking information, have to be taken into account.

Expected credit losses are a probability-weighted estimate of credit losses, i.e. the present value of expected cash shortfalls, over the life of the financial instrument. A cash shortfall is the difference between the cash flows that are due to an entity in accordance with the contract and the cash flows that entity is expected to receive. Upon initial recognition, the impairments in lending business are based on expected credit losses for twelve months (so-called stage 1). The 12-month expected credit loss is that part of the lifetime expected credit losses, which is equal to the expected credit losses from defaults that may occur for the financial instrument within twelve months after balance sheet date. In case of a significant increase in the financial asset's credit risk within the context of subsequent measurement (stage 2) or in case of a credit impairment (stage 3), the impairment has to reflect the expected default events over the life of the transaction (lifetime expected credit loss).

The methods and judgements, including forward-looking information, for the determination of a change of an impairment stage and estimation of the amount of impairment are reviewed at least annually.

In accordance with IAS 8.34, an accounting estimate may need revision if changes occur in the circumstances on which the estimate was based, or as a result of new information or more experience. The determination of loss allowances on financial instruments is based on accounting estimates. In 2021, pbb Group made two changes in accounting estimates as regards the measurement of loss allowances for non-credit-impaired financial instruments (Stages 1 and 2).

> Regulatory risk parameters, including the probability of default (PD) and the loss given default (LGD), are used as a basis for determining the amount of credit losses of stage 1 and stage 2 financial instruments; these are transformed into a point-in-time estimate, i.e. an exact estimate of the current situation. The point-in-time transformation uses parameters that are based on historical loss experience. This change in accounting estimates reflects experience from the analysis of factors affecting losses.

  The probability of default was previously transformed using expected fair market values for real estate and the expected relative change in the unemployment rate (models for special purpose entities) or the expected unemployment rate (models for entities other than special purpose entities). Instead of the expected relative changes in the unemployment rate, the expected absolute change is now used in the models

for special purpose entities. Furthermore, the expected 5-year swap rate per currency is taken into account as an additional transformation parameter. Moreover, the fair market values for real estate per property type at a granular level in the respective country are used for the transformation of the probability of default and the loss given default. In addition, the determination of the loss given default is determined using experience as regards historical loss rates, discounted to the relevant date of default and, in this context, particularly in connection with the relation between loss given default and the discount rate.

This change in accounting estimates led to an increase in net income from risk provisioning of €44 million. Of that amount, €40 million referred to allowances for financial assets, while €4 million was attributable to as yet undisbursed amounts, i.e. off-balance sheet transactions.

- pbb Group used a base scenario with a weighting of 55% (31 December 2020: 85%), a positive scenario with a weighting of 5% (31 December 2020: 5%), and a negative scenario with a weighting of 40% (31 December 2020: 10%) as the basis for calculating the loss allowances of Stages 1 and 2. The adjustment of the weighting takes into account the increased probability of economic risks from newly arising problems such as supply chain issues in 2021, or inflation risks. This led to an increase in net income from risk provisioning as at 31 December 2021 in the amount of €29 million. Of that amount, €24 million was attributable to financial assets and €5 million to as yet undisbursed amounts, i.e. off-balance sheet transactions.

Fair Values of Original and Derivative Financial Instruments
The fair value of financial instruments that are not listed on active markets is measured using valuation models. In such cases, a check is performed regularly to assess whether the valuation models provide a comparable benchmark for current market prices. The valuation models can only take into account quantifiable factors (e.g. cash flows and discount rates) that also require estimates. Changes in estimations of these factors might have an impact on the fair values of the financial instruments.

Criteria in the area of environment, social and governance (ESG) should have a growing influence on the fair values of financial instruments in the future. This could lead to adjustments in estimates and measurement models.

Hedge Accounting
Relations between hedged items and hedging instruments can be presented in hedge accounting. A relationship only qualifies for hedge accounting when certain conditions specified under IAS 39.88 are satisfied. Amongst others the hedge has to be very efficient with regard to achieving compensation for the risks resulting from changes in the fair value or the cash flow in relation to the hedged risk.

The determination of the effectiveness of the risk hedge depends on risk measuring methods, the parameters which are used and estimations relating to the probability of occurrence. These methods and parameters are continuously developed in line with the risk management objectives and strategies.

Intangible Assets, Tangible Assets including Right-of-Use assets from Leases
pbb Group's accounting for intangible assets and tangible assets including right-of-use assets from leases are subject to estimation uncertainties, particularly in the determination of the useful life of assets respecitively the expected contractual period of the lease and the associated amount of depreciation/amortisation recognised per period.

Provisions
Estimates are used in the measurement of provisions at pbb Group. Estimation uncertainties arise in particular during assessment of the amount of the future cash outflows, the time horizon and the discount rate.

Income Taxes
pbb Group is subject to a wide range of national tax regulations with regard to the calculation of income taxes. In order to measure the tax expenses, it is necessary to make estimates that are calculated with the existing knowledge as of the balance sheet date and closely related to the tax return prepared in the following financial year. In some countries, the current tax charges attributable to the current financial year can only be definitely finalised after the corresponding tax audit has been completed. The variances with regard to the estimated tax burden may have a positive or negative influence on the tax burden in future financial years.

With regard to the capitalisation of deferred taxes on loss carryforwards and other tax credits, the extent as well as the actual availability of such tax benefits are subject to estimation. These estimates are subject to change based on new information and findings. Major losses carried forward are subject to national German tax law, and their availability depends inter alia on the restrictions set out in Sections 10 d EStG, 8 c KStG as well as Section 10 a GewStG restrictions. Deferred tax assets arising from losses carried forward are therefore recognised to the extent as it is likely that future taxable income will be available to offset the non-utilised tax losses carried forward. The actual tax result situation in future periods - and thus the actual usability of loss and interest carryforwards - may differ from the estimate at the time the deferred taxes are recognized.

Deferred tax assets have to be recorded to the extent that it is probable that future taxable profit will be available against which the unused tax losses may be utilised. Deferred tax assets on tax loss carryforwards are measured on the basis of accounting estimates. In accordance with IAS 8.34, such accounting estimates may need revision if changes occur in the circumstances on which the estimate was based, or as a result of new information or more experience. In the second quarter of 2021, pbb Group made an accounting estimate in connection with the measurement of deferred income tax assets by adjusting the assumed useful life of the tax asset in line with the corporate planning period. As a result of the changed accounting estimate, income taxes decreased by €7 million.

Consolidation
Companies and structured entities must be consolidated if pbb has direct or indirect control over them. Control is deemed to exist if pbb has decision-making powers to manage relevant activities, has a right to significant returns from the subsidiary and can use its decision-making powers to influence the amount of the significant variable returns. The level of control is assessed on the basis of contractual and economic relationships to the company or the structured entity. The assessment whether pbb exerts control or substantial influence over the company may result in judgement leeway.

30. Notes to segment reporting by operating segment

Segment reporting for the 2021 financial year was prepared in accordance with IFRS 8 Operating Segments. In line with the Management Approach under IFRS 8, segment reporting discloses segment-specific, management-relevant financial information that is also regularly used by Management Board (Chief Operating Decision Maker) when deciding on the allocation of resources, and for assessing the earnings power of segments. Based on the organisational structure of pbb Group, which is aligned to the various products and services offered, three business segments have been determined in line with internal management reporting.

Within segment reporting, income is determined by deducting matched-maturity funding rates prevailing at the time of concluding a transaction from the interest rate charged to the client. The input parameters required for this purpose are set at the time of originating a new business transaction, within the scope of accounting for individual transactions. In addition, income from investing the Bank’s own funds is included at segment level. The allocation of liquidity costs to the operating segments is based on the transfer price mechanism for the individual transaction. The income of pbb Group's operating segments is based exclusively on transactions with external customers. For this reason, pbb does not present income per business segment separately according to internal and external income.

Further income or expenses that cannot be allocated directly to a specific lending transaction (in particular, the results from disposal of assets held for liquidity management, from market-induced effects on net income from fair value measurement, hedging relationships, the reversal or addition of provisions in the non-lending business as well as the bank levy) are allocated to the business segments, usually on a pro-rata basis, in line with financing volumes.

The allocation of general and administrative expenses to the operating segments differentiates between expenses which can be directly attributed and those which are not directly attributable. Expenses (of the sales units, for example) which are directly attributable can be clearly assigned to the segments via the cost centre. Expenses (of the central units, for example) which are not directly attributable are assigned to the segments’ cost centres via well-defined allocation models.

Segment risk-weighted assets (RWA) are determined in accordance with the allocation of individual transactions (credit risk, for example) and with the allocated risk types (operational risks, for example). Risk types which are not directly attributable are assigned to the segments in accordance with -defined allocation models.

pbb allocates reported equity to segments in proportion to economic required capital (in line with the ‘bottleneck principle’), incorporating adjusted input parameters from Pillar 1 for the ICAAP economic perspective.

Real Estate Finance (REF)
The REF operating segment comprises financing for professional real estate investors. These include professional national and international real estate companies, institutional investors, property funds as well as, above all in Germany, customers with a regional focus. Financed properties mainly involve office buildings, properties for residential use, retail and logistics properties as well as (business) hotels.

Public Investment Finance (PIF)
The PIF business segment comprises financing eligible for covered bonds aimed at the provision and improvement of public infrastructure. Customers in this segment include, amongst others, regions, provinces, municipalities, urban development companies, public hospitals, investment or real estate companies. Moreover, the Group is active in long-term publicly guaranteed export financings hedged by public export-credit insurers. Bond purchases, above all for cover assets pool and liquidity management, are also part of this segment. In addition, the PIF segment includes the earnings contribution of the subsidiary CAPVERIANT GmbH, which operates a digital platform for public-sector borrowers and institutional investors.

Value Portfolio (VP)
The Value Portfolio (VP) operating segment comprises non-strategic portfolios and activities of pbb Group. The VP consists almost entirely of existing financings to the public sector which are not linked to specific projects (budget financing).

Consolidation & Adjustments (C&A) reconciles the aggregated segment results with the consolidated result. The column also includes income from the investment of allocated equity.

31. Income statement by operating segment

Income/expenses

in € million		REF	PIF	VP	C&A	pbb Group
Operating income	2021	511	40	38	2	**591**
	2020	442	41	39	4	**526**
Net interest income	2021	417	37	38	2	**494**
	2020 [1]	396	38	38	4	**476**
Net fee and commission income	2021	8	-	-	-	**8**
	2020	6	-	-	-	**6**
Net income from fair value measurement	2021	6	1	3	-	**10**
	2020	-6	-1	-1	-	**-8**
Net income from realisations	2021	81	2	-2	-	**81**
	2020	24	1	1	-	**26**
Net income from hedge accounting	2021	-	-	-	-	**-**
	2020	3	-	1	-	**4**
Net other operating income	2021	-1	-	-1	-	**-2**
	2020	19	3	-	-	**22**
Net income from risk provisioning	2021	-79	-	-2	-	**-81**
	2020	-129	-1	4	-	**-126**
General and administrative expenses	2021	-189	-19	-11	-	**-219**
	2020	-175	-19	-10	-	**-204**
Expenses from bank levies and similar dues	2021	-18	-4	-7	-	**-29**
	2020	-16	-3	-7	-	**-26**
Net income from write-downs and write-ups of non-financial assets	2021	-17	-2	-1	-	**-20**
	2020	-16	-2	-1	-	**-19**
Profit before tax	**2021**	**208**	**15**	**17**	**2**	**242**
	2020 [1]	**106**	**16**	**25**	**4**	**151**

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Cost-income ratio[1]

in %		REF	PIF	VP	pbb Group
Cost-income ratio	2021	40.3	52.5	31.6	**40.4**
	2020[2]	43.2	51.2	28.2	**42.4**

[1] Cost-income ratio is the ratio of general and administrative expenses and net income from write-downs and write-ups on non-financial assets to operating income.
[2] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

32. Balance-sheet-related measures by operating segment

The Management Board controls balance-sheet-related measures by operating segments based on financing volumes, on risk-weighted assets and on equity.

Balance-sheet-related measures

in € billion		REF	PIF	VP	C&A	pbb Group
Financing volumes[1]	31.12.2021	27.6	5.2	10.9	-	**43.7**
	31.12.2020	27.0	5.8	11.4	-	**44.2**
Risik-weighted assets[2]	31.12.2021	15.1	0.7	0.3	0.7	**16.8**
	31.12.2020	16.0	0.8	0.4	0.5	**17.7**
Equity[3]	31.12.2021	2.0	0.2	0.5	0.4	**3.1**
	31.12.2020	1.9	0.2	0.5	0.4	**3.0**

[1] Notional amounts of the drawn parts of granted loans and parts of the securities portfolio.
[2] Including risk-weighted credit risk positions as well as the capital requirements for market risk positions and operational risks scaled with the factor 12.5.
[3] Excluding accumulated other comprehensive income (OCI) from cash flow hedge accounting, financial assets at fair value through OCI, AT1 capital and non controlling interest.

33. Breakdown of operating income

Operating income by products

Operating income by products

in € million		Real estate financing	Public investment financing	Other Products	pbb Group
Operating income	2021	511	40	40	**591**
	2020[1)]	442	41	43	**526**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Operating income by regions

pbb Group differentiates between the regions Germany, Rest of Europe and USA. Allocation of values to regions is based on the location of the registered offices of the Group companies or their branches respectively their representative offices.

Operating income by regions

in € million		Germany	Rest of Europe	USA	pbb Group
Operating income	2021	549	38	4	**591**
	2020[1)]	488	34	4	**526**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Operating income by customers

There were no significant customers within the meaning of IFRS 8.34 in the financial years 2021 and 2020.

NOTES TO THE CONSOLIDATED INCOME STATEMENT

34. Net interest income

Net interest income

in € million	**2021**	**2020[1)]**
Interest income	1,498	1,557
from financial assets at fair value through profit or loss	217	229
from financial assets at fair value through other comprehensive income	31	49
from financial assets at amortised cost	1,041	1,104
from hedge accounting derivatives (net)	117	126
from other assets	4	4
negative interest from non-derivative financial liabilities	88	45
Interest expenses	-1,004	-1,081
from financial liabilities at fair value through profit or loss	-250	-279
from financial liabilities measured at amortised cost	-712	-777
from other liabilities	-1	-1
positive interest from non-derivative financial assets	-41	-24
Total	**494**	**476**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

The net interest income contains positive interest (net) from derivatives in the amount of €19 million (2020: €22 million).

As a result of the larger significance of negative interest, for example from the participation in the TLTRO III and in the deposit-taking business under certain circumstances, pbb Group pre-

sents negative interest from non-derivative financial assets as interest expenses and negative interest from non-derivative financial liabilities as interest income.

35. Net fee and commission income

Net fee and commission income

in € million	2021	2020
Fee and commission income	11	8
from financial assets at amortised cost and financial liabilties not at fair value through profit or loss	11	8
Other lending business	11	8
Fee and commission expenses	-3	-2
from financial assets at amortised cost and financial liabilties not at fair value through profit or loss	-3	-2
Securities and custodial services	-1	-1
Other lending business	-2	-1
Total	**8**	**6**

Fee and commission income is recognised at a point in time when the performance obligation is satisfied, i.e. the service is provided, by pbb Group. Fee and commission income is generated solely in the REF segment.

36. Net income from fair value measurement

Net income from fair value measurement

in € million	2021	2020
Net income from stand-alone derivatives	24	-11
Interest derivatives	24	-11
Net income from other financial assets at fair value through profit or loss	-14	3
From debt instruments	-14	3
Debt securities	-4	3
Loans and advances	-10	-
Total	**10**	**-8**

37. Net income from realisations

Net income from realisations

in € million	2021	2020
Income from derecognition of financial instruments	89	30
from financial assets at amortised cost	87	28
from early repayment	87	28
from financial liabilities measured at amortised cost	2	2
from early repayment	2	2
Expenses from derecognition of financial instruments	-8	-4
from financial assets at fair value through other comprehensive income	-1	-
from disposal	-1	-
from financial assets at amortised cost	-1	-3
from early repayment	-1	-3
from financial liabilities measured at amortised cost	-6	-1
from early repayment	-6	-1
Total	**81**	**26**

38. Net income from hedge accounting

Net income from hedge accounting

in € million	2021	2020
Net income from micro fair value hedge accounting	1	4
from hedged items	85	179
from hedging instruments	-84	-175
Net income from portfolio hedge accounting	-1	-
from hedged items	18	-67
from hedging instruments	-19	67
Total	**-**	**4**

39. Net other operating income

Net other operating income

in € million	2021	2020
Net income from foreign currency translation	-4	1
Net income from provisions in non-lending business	2	21
Total	**-2**	**22**

40. Net income from risk provisioning

Net income from risk provisioning

in € million	2021	2020
From financial assets	-83	-118
Stage 1	21	-29
Stage 2	-57	-32
Stage 3	-47	-57
Income from recoveries from written-off financial assets	1	1
Net income from provisions in off balance sheet lending business	1	-9
Total	**-81**	**-126**

Net income from risk provisioning from financial assets resulted almost completely from financial assets “at amortised cost” apart.

41. General and administrative expenses

General and administrative expenses

in € million	2021	2020
Personnel expenses	-132	-122
Wages and salaries	-101	-97
Social security expenses	-14	-13
Pension expenses and related employee benefit expenses	-9	-11
Other personnell expenses/income	-8	-1
Non-personnel expenses	-87	-82
Office and operating expenses	-5	-5
Consulting expenses	-21	-20
IT expenses	-47	-43
Other non-personnel expenses	-14	-14
Total	**-219**	**-204**

42. Expenses from Bank Levies and Similar Dues

Expenses from bank levies and similar dues[1]

in € million	2021	2020
Bank levies	-27	-23
Deposit protection fund	-	-2
Compensation scheme of German banks	-2	-1
Total	**-29**	**-26**

[1] Includes administrative expenses invoiced for the dues/levies.

43. Net Income from Write-downs and Write-Ups of Non-financial Assets

Net income from write-downs and write-ups of non-financial assets

in € million	2021	2020
Depreciation or amortisation	-20	-19
Tangible assets	-6	-7
Thereof: Right-Of-Use of lease assets	-5	-6
Intangible assets	-14	-12
Total	**-20**	**-19**

44. Icome Tax

Breakdown

in € million	2021	2020[1]
Current taxes	-38	-34
Deferred taxes	24	4
Thereof: Deferred taxes on losses carried forward	54	-26
Total	**-14**	**-30**

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Current taxes include a tax income for prior years of €8 million (2020: €6 million). Tax income for prior years resulted from tax refunds arising from a retrospective change to the legal position of the tax authorities and from the reversal of provisions for tax audit risks of subsidiaries. The tax income for prior years in 2020 resulted from releases of provisions for tax audits of foreign branches

For domestic companies, the deferred taxes are calculated using the future uniform rate of corporation tax of 15.0% plus the corresponding 5.5% solidarity surcharge and the trade tax depending on the locally applicable assessment rate (the current basic rate is 3.5%). For pbb, the tax rate for the calculation of deferred taxes is 27.67% (2020: 27.67%).

The following overview shows the development of the deferred taxes recognised in the financial statements:

Development of deferred taxes

in € million	2021	2020[1]
Deferred taxes recognised in the statement of financial position	129	95
Difference to prior year	34	5
Thereof: Recognised in profit or loss	24	4
OCI from pension commitments	10	1
OCI from financial assets at fair value through OCI	-3	-
OCI from Cash flow hedge accounting	3	-

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

The increase in deferred taxes by €34 million (2020: €5 million) is mainly attributable to the subsequent recognition of tax loss carryforwards due to an increased recoverability. This is based on the expected positive development of pbb in the forecast period and the higher earnings contribution from domestic operations and an adjustment in the estimation method.

The deferred taxes recognised outside profit or loss regarding accumulated other comprehensive income increased by €10 million (2020: €1 million).

Reconciliation

in € million (unless otherwise indicated)	2021	2020[1)]
Profit or loss before tax	242	151
Applicable (legal) tax rate in %	27.67	27.67
Expected (computed) tax expense	-67	-42
Tax effects		
arising from deductible and non-deductible items	-7	-3
arising from valuation adjustments and non-application of deferred taxes	52	9
arising from prior years	8	6
Reported income taxes	**-14**	**-30**
Group tax ratio in %	**5.79**	**19.87**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Following the precise determination on euro basis, the corporate tax rate was at 5,77% (2020: 20.32%)

The tax rate applicable for the reporting year, including solidarity surcharge, is 27.67% (2020: 27.67%) and is comprised of the 15.0% German corporate tax rate currently valid, the payable solidarity surcharge of 5.5% as well as the average trade tax rate of 11.84% (2020: 11.84%).

Foreign tax rates ranged between 19.0% and 30.0%. In Germany, the effective current tax charge based on corporate tax, solidarity surcharge and trade tax is 11.07% due to the utilisation of loss carryforwards in the context of minimum taxation.

The effects attributable to deductible and non-deductible items relate primarily to non-deductible expenses, which do not have to be taken into account as deferred taxes as a result of permanent differences, but which have reduced or increased the basis of taxation.

The effects arising from valuation adjustments and non-application of deferred taxes comprise effects from write up of deferred tax assets of balance differences, the use of tax losses carried forward previously not accounted for and from opposing effects from non-application of deferred tax assets of balance differences.

The effects from previous years include current taxes for previous years, which have incurred because of the reversal of provisions for tax audits of one branch due to statutes of limitations.

The Group tax ratio is the quotient of the stated income taxes (current and deferred taxes) and profit before tax.

The deferred tax liabilities or deferred tax assets relate to the following items:

Deferred tax liabilities/assets

in € million	2021	2020
Financial assets at amortised cost after credit loss allowances	44	58
Positive fair values of hedge accounting derivatives	46	31
Financial liabilities at fair value through profit or loss	140	198
Other assets/liabilities	17	48
Deferred tax liabilities before offsetting	**247**	**335**
Offsetting	-247	-335
Deferred tax liabilities after offsetting	**-**	**-**
Financial assets at fair value through profit or loss	149	148
Positive/negative fair values of hedge accounting derivatives	100	149
Provisions	46	64
Other assets/liabilities	27	69
Losses carried forward	54	-
Deferred tax assets before offsetting	**376**	**430**
Offsetting	-247	-335
Deferred tax assets after offsetting	**129**	**95**

The assessment of the recoverability of deferred tax assets on deductible temporary differences and on loss carryforwards is based on tax planning derived from the general corporate planning.

On the reporting date, there were unused tax losses tax carried forward €2,532 million (2020: €2,978 million) at corporate tax level and €2,688 million (2020: €3,056 million) at trade tax level, for which no deferred tax assets have been recognised Loss carryforwards may be applied for an unlimited period, unless in the event of a change of shareholders which is detrimental for tax purposes. In addition, no deferred tax assets were recognised on deductible temporary differences that can be carried forward indefinitely in the amount of €375 million (2020: €62 million). Deferred tax income from the origination and reversal of temporary differences arose in the amount of €50 million (2020: deferred tax income of €24 million).

Tax rate changes did not result in major deferred tax expenses or income in the current year nor in the previous year.

The use of tax losses previously not recognised resulted in a reduction in the current income tax expense in the amount of €57 million (2020: reduction in the current income tax expense in the amount of €20 million). From the use and write-off of loss carryforwards previously recognised, deferred no tax expense arose (2020: deferred tax expenses of €26 million).

In 2021 there were no differences associated with investments in subsidiaries (2020: no differences as well).

45. Net Gains/Net Losses

The income statement contains the following net gains/net losses recognised in profit or loss by measurement categories:

Net Gains/Net Losses by measurement categories

in € million	2021	2020
Financial assets		
at fair value through profit ot loss	10	-8
from stand-alone derivatives	24	-11
from debt instruments	-14	3
at fair value through other comprehensive income	-1	-
at amortised cost	4	-92
Financial liabilities		
at amortised cost	-4	1

The net gains and losses include additions to and reversals of credit loss allowances, derecognition gains and losses as well as the fair value measurement results from financial instruments recognised in profit or loss.

46. Earnings Per Share

Earnings per share

		2021	2020[1)]
Net income attributable to shareholders of pbb	in € million	229	121
Thereof: attributable to the ordinary shareholders	in € million	212	104
Thereof: attributable to the AT1 investors	in € million	17	17
Average number of ordinary shares issued	pieces	134,475,308	134,475,308
Adjusted average number of ordinary shares issued pieces	pieces	134,475,308	134,475,308
Basic earnings per share	**in €**	**1.58**	**0.77**
Diluted earnings per share	**in €**	**1.58**	**0.77**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Earnings per share are calculated in accordance with IAS 33 by dividing net income/loss attributable to the ordinary shareholders holders by weighted average number of ordinary shares. Net income/loss is allocated under the assumption of after-tax interests for the AT1 capital, which are accrued pro rata temporis as well as assuming full operation of the discretionary AT1-coupon.

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION (ASSETS)

47. Cash reserve

Cash reserve

in € million	31.12.2021	31.12.2020
Balances with central banks	6,607	5,376
Total	**6,607**	**5,376**

Cash on hand as of 31 December 2021 amounts to €0 million as was the case in previous year.

48. Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss

in € million	31.12.2021	31.12.2021
Positive fair values of stand-alone derivatives	540	737
Interests in companies and funds qualified as debt instruments	3	3
Debt securities	132	134
Bonds and notes	132	134
Public-sector issuers	88	89
Other issuers	44	45
Loans and advances to customers	505	494
Public-sector loans and advances	159	275
Real estate loans and advances	346	219
Total	**1,180**	**1,368**

49. Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income

in € million	31.12.2021	31.12.2020
Debt securities	943	1,384
Bonds and notes	943	1,384
Public-sector issuers	360	614
Other issuers	583	770
Loans and advances to customers	315	145
Public-sector loans and advances	115	145
Other	200	-
Total	**1,258**	**1,529**

50. Financial assets at amortised cost after credit loss allowances(including claims from finance lease agreements)

Financial assets at amortised cost before credit loss allowances

in € million	31.12.2021	31.12.2020[1)]
Debt securities	6,893	7,481
Bonds and notes	6,893	7,481
Public-sector issuers	5,052	5,492
Other issuers	1,841	1,989
Loans and advances to other banks	2,646	1,874
Public-sector loans and advances	551	556
Investments in money	1,034	-
Other loans and advances to other banks	1,061	1,318
Loans and advances to customers	38,710	39,358
Public-sector loans and advances	11,466	12,591
Real estate loans and advances	27,183	26,740
Other loans and advances to customers	61	27
Claims from finance lease agreements	180	200
Total	**48,429**	**48,913**

[1)] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

Development in risk provisioning

in € million	1.1.2021	Transfer Stage 1	Transfer Stage 2	Transfer Stage 3	New Business and additions	Repayments and derecognitions	Amounts used	Changes of credit risk (net)	Other changes	31.12.2021
Allowances for credit losses on financial assets	-244	-	-	-	-57	25	-	-51	-15	-342
measured at amortised cost	-244	-	-	-	-57	25	-	-51	-15	-342
Debt securities	-2	-	-	-	-	-	-	-1	-	-3
Stage 1	-2	-	-	-	-	-	-	-1	-	-3
Loans and advances to customers	-242	-	-	-	-57	25	-	-50	-15	-339
Stage 1	-39	-27	39	-	-57	10	-	50	-1	-25
Stage 2	-90	27	-39	-	-	15	-	-53	-2	-142
Stage 3	-113	-	-	-	-	-	-	-47	-12	-172
Provisions for off-balance-sheet lending business (contingent liabilies and other commitments)	-17	-	-	-	-12	3	-	10	-	-16
Stage 1	-12	-1	7	-	-12	2	-	12	-	-4
Stage 2	-5	1	-7	-	-	1	-	-2	-	-12
Total	**-261**	**-**	**-**	**-**	**-69**	**28**	**-**	**-41**	**-15**	**-358**

Development in risk provisioning

in € million	1.1.2020	Transfer Stage 1	Transfer Stage 2	Transfer Stage 3	New Business and additions	Repayments and derecognitions	Amounts used	Changes of credit risk (net)	Other changes	31.12.2020
Allowances for credit losses on financial assets	-127	-	-	-	-23	8	2	-103	-1	-244
measured at amortised cost	-127	-	-	-	-23	8	2	-103	-1	-244
Debt securities	-3	-	-	-	-	-	-	1	-	-2
Stage 1	-2	-	-	-	-	-	-	-	-	-2
Stage 2	-1	-	-	-	-	-	-	1	-	-
Loans and advances to customers	-124	-	-	-	-23	8	2	-104	-1	-242
Stage 1	-24	-1	15	-	-23	5	-	-12	1	-39
Stage 2	-45	1	-15	1	-	3	-	-35	-	-90
Stage 3	-55	-	-	-1	-	-	2	-57	-2	-113
Provisions for off-balance-sheet lending business (contingent liabilies and other commitments)	-8	-	-	-	-4	3	-	-8	-	-17
Stage 1	-7	-	1	-	-4	2	-	-4	-	-12
Stage 2	-1	-	-1	-	-	1	-	-4	-	-5
Total	**-135**	**-**	**-**	**-**	**-27**	**11**	**2**	**-111**	**-1**	**-261**

Loss allowances on financial assets measured at fair value through other comprehensive income and on receivables from finance leases amounted to less than €1 million as at 31 December 2021 and 31 December 2020.

Although in 2021 the overall economy partially recovered from the significant slump triggered by the COVID-19 pandemic of 2020, uncertainty about future developments remains high. This is due to the uncertain further trend of the COVID-19 pandemic. The reasons for this uncertainty include, among other things, new waves of infections due to virus mutations and the insufficient vaccination coverage of the population. Further waves of the pandemic may exert additional pressure on the overall economy.

In line with current publications – including those of the ECB, other central banks and economic research institutes – pbb Group in general expects the economy to continue to recover in 2022, which will bring about a reduction in the unemployment rate. In the context of measuring risk provisioning, pbb takes into account the change in the unemployment rate as an indicator for forecasting economic developments. The expectation of a macroeconomic recovery and of a reduction in the unemployment rate results in a reversal of impairments for stage 1 and 2 financial assets (in line with the methodology). In this context, the models used for determining stage

1 and stage 2 classification are very sensitive to the currently expected recovery of the overall economy and would lead to significant reversals of impairments.

In spite of the pandemic and the temporary macroeconomic slump, there have not yet been any major loan defaults or insolvencies, as had been assumed. This is primarily due to the massive government liquidity support and other assistance measures. It is unclear how the number of defaults and insolvencies will develop once the support measures expire and in case of a longer-lasting pandemic, involving additional waves and ensuing countermeasures.

The Management Board assumes that defaults will occur with a time lag in some cases as a result of the existing government support measures. This is not likely to affect pbb Group's entire portfolio, but rather certain sub-portfolios, and in particular hotels and parts of the retail sector as well as properties in weaker locations and regions. Therefore, the Management Board decided to address these economic consequences by increasing the risk provisioning for these specific sub-portfolios in the form of a management overlay.

This management overlay also takes into account all other financial assets previously included in stage 2 impairments. The reason for this is that these financings are subject to a significantly increased default risk since initial recognition and therefore are subject to an increased necessity to defer payments, or extend loan maturities. This currently higher probability of deferrals and extensions after the expiry of government support measures and due to negative developments with regard to the pandemic is not adequately reflected in model-based allowance.

In the context of the management overlay, loss allowances are recorded in the amount of the lifetime expected credit loss of all financial assets of the defined sub-portfolios. For this purpose, financial assets with a gross carrying amount of €3,066 million were transferred from stage 1 impairments to stage 2 impairments, although they would not have fulfilled the stage 2 requirements according to the model. Taking into account the financial assets outside of the defined sub-portfolios which were reclassified from stage 2 to stage 1 in line with normal procedure, due to the generally more positive macroeconomic expectations, the gross carrying amount of stage 2 financings increased by €701 million as at 31 December 2021 compared to the previous year.

The time lag with respect to the occurrence of defaults and insolvencies since the low point of the recession in mid-2020, such as the change in the unemployment rate, was taken into account within the scope of the management overlay for all financial assets from the defined sub-portfolios and for all remaining financial assets of stage 2 impairments. As a result of said management overlay, stage 1 and stage 2 impairments increased by €54 million. As this is a temporary adjustment of expected credit losses to adequately reflect the current risk situation of customers, it will take some time before a full picture of the impact of the COVID-19 pandemic and subsequent measures at the level of the individual customer emerges.

If all stage 1 financial assets were in stage 2, using the methodology of the management overlay the balance of credit loss allowances as at 31 December 2021 would increase by €97 million (31 December 2020: €44 million). For off-balance sheet transactions, the additional increase would be €16 million (31 December 2020: €12 million).

If all stage 2 financial assets were in stage 1, using the methodology of the management overlay the balance of credit loss allowances would decrease by €101 million (31 December 2020: €36 million). For off-balance sheet transactions, the decrease would be €10 million (31 December 2020: €2 million).

pbb Group used a base scenario with a weighting of 55% (31 December 2020: 85%), a positive scenario with a weighting of 5% (31 December 2020: 5%), and a negative scenario with a weighting of 40% (31 December 2020: 10%) as the basis for the calculation of the loss allow-

ances of Stages 1 and 2. If the positive scenario was given a weighting of 100%, using the methodology of the management overlay the loss allowances would be reduced by €60 million (31 December 2020: €25 million). If the negative scenario was given a weighting of 100%, using the methodology of the management overlay the loss allowances would be increased by €100 million (31 December 2020: €44 million).

When determining loss allowances, information about past events, current conditions and forecasts of future economic developments are incorporated in accordance with IFRS 9.5.5.17. Material parameters for economic development are the expectations as regards the gross domestic product and the unemployment rate. pbb Group has used the following values.

Forecast of gross domestic product in percent

	Scenario									
		Positive			Basis			Negative		
Country/year	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
Germany	3.1	5.1	1.6	1.4	4.6	1.6	1.4	-0.4	-0.9	1.4
France	6.3	5.0	1.8	1.5	3.9	1.8	1.5	-3.8	-0.2	1.5
Spain	5.7	7.5	3.2	2.0	6.4	2.6	2.0	-0.7	1.4	2.0
Italy	5.8	5.3	1.6	1.0	4.2	1.6	1.0	-2.3	-1.2	1.0
United Kingdom	6.8	7.0	2.0	1.6	5.0	1.9	1.6	1.5	-0.1	1.6
USA	6.0	4.2	2.7	1.7	5.2	2.2	1.7	1.7	0.1	1.7

Forecasts of unemployment rate in percent

	Scenario									
		Positive			Basis			Negative		
Country/year	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
Germany	3.6	2.8	2.6	2.5	3.2	2.9	2.8	6.4	6.5	6.2
France	8.0	7.1	7.0	7.0	7.9	7.8	7.7	10.6	11.5	10.5
Eurozone	8.0	7.2	7.0	7.0	7.3	6.9	6.6	10.0	10.6	9.4
United Kingdom	4.5	3.6	4.0	4.2	4.0	4.3	4.5	10.6	7.9	7.5
USA	4.3	2.9	3.0	3.0	3.5	3.5	3.5	7.5	8.2	7.5

Forecasts of five-year swap rate in percent

	Scenario									
		Positive			Basis			Negative		
Currency/year	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
EUR	0.0	0.1	0.2	0.3	0.1	0.2	0.3	-0.1	-0.1	0.1
GBP	1.3	1.3	1.2	1.1	1.3	1.2	1.1	1.1	1.0	1.0
USD	1.4	1.6	1.7	1.7	1.6	1.7	1.7	1.4	1.4	1.6
CHF	-0.2	0.0	0.1	0.2	0.0	0.1	0.2	-1.0	-0.8	-0.2
SEK	0.7	0.8	1.0	1.0	0.8	1.0	1.0	0.7	0.8	0.9

Development in gross carrying amounts

in € million	1.1.2021	Transfer Stage 1	Transfer Stage 2	Transfer Stage 3	New Business and additions	Repayments and derecognitions	Direct write-offs	Other	31.12.2021
Gross carrying amounts of financial assets	50,370	-	-	-	9,576	-9,944	-1	-360	49,641
measured at fair value through other comprehensive income	1,457	-	-	-	200	-412	-	-33	1,212
Debt securities	1,333	-	-	-	-	-390	-	-32	911
Stage 1	1,333	-	-	-	-	-390	-	-32	911
Loans and advances to customers	124	-	-	-	200	-22	-	-1	301
Stage 1	124	-	-	-	200	-22	-	-1	301
measured at amortised cost	48,913	-	-	-	9,376	-9,532	-1	-327	48,429
Debt securities	7,481	-	-	-	-	-365	-	-223	6,893
Stage 1	7,481	-	-431	-	-	-365	-	-222	6,463
Stage 2	-	-	431	-	-	-	-	-1	430
Loans and advances to other banks	1,874	-	-	-	1,637	-859	-	-6	2,646
Stage 1	1,874	-	-	-	1,637	-859	-	-6	2,646
Loans and advances to customers	39,358	-	-	-	7,739	-8,296	-1	-90	38,710
Stage 1	30,172	2,600	-5,288	-	7,739	-5,626	-	-469	29,128
Stage 2	8,731	-2,600	5,316	-193	-	-2,504	-	252	9,002
Stage 3	455	-	-28	193	-	-166	-1	127	580
Claims from finance lease agreements	200	-	-	-	-	-12	-	-8	180
Stage 1	200	-	-	-	-	-12	-	-8	180
Off-balance-sheet business [1]	3,440	-	-	-	1,720	-1,968	-	41	3,233
Stage 1	2,993	102	-837	-	1,720	-1,587	-	-97	2,294
Stage 2	447	-102	837	-	-	-381	-	138	939
Total	**53,810**	**-**	**-**	**-**	**11,296**	**-11,912**	**-1**	**-319**	**52,874**

[1] Notional amount of contingent liabilities and other commitments.

Development in gross carrying amounts

in € million	1.1.2020	Transfer Stage 1	Transfer Stage 2	Transfer Stage 3	New Business and additions	Repayments and derecognitions	Direct write-offs	Other	31.12.2020
Gross carrying amounts of financial assets	51,940	-	-	-	6,868	-8,780	-2	344	50,370
measured at fair value through other comprehensive income	1,608	-	-	-	181	-322	-	-10	1,457
Debt securities	1,269	-	-	-	181	-112	-	-5	1,333
Stage 1	1,267	-	-	-	181	-110	-	-5	1,333
Stage 2	2	-	-	-	-	-2	-	-	-
Loans and advances to other banks	15	-	-	-	-	-14	-	-1	-
Stage 1	15	-	-	-	-	-14	-	-1	-
Loans and advances to customers	324	-	-	-	-	-196	-	-4	124
Stage 1	324	-	-	-	-	-196	-	-4	124
measured at amortised cost	50,332	-	-	-	6,687	-8,458	-2	354	48,913
Debt securities	7,679	-	-	-	145	-330	-	-13	7,481
Stage 1	7,679	-	-	-	145	-330	-	-13	7,481
Loans and advances to other banks	2,356	-	-	-	338	-828	-	8	1,874
Stage 1	2,356	-	-	-	338	-828	-	8	1,874
Loans and advances to customers[1]	40,089	-	-	-	6,204	-7,288	-2	355	39,358
Stage 1	36,503	304	-8,129	-	6,204	-4,717	-	7	30,172
Stage 2	3,094	-304	8,129	-85	-	-2,441	-	338	8,731
Stage 3	492	-	-	85	-	-130	-2	10	455
Claims from finance lease agreements	208	-	-	-	-	-12	-	4	200
Stage 1	208	-	-	-	-	-12	-	4	200
Off-balance-sheet business[2]	4,310	-	-	-	1,330	-2,282	-	82	3,440
Stage 1	4,182	105	-739	-	1,330	-1,886	-	1	2,993
Stage 2	128	-105	739	-	-	-396	-	81	447
Total	**56,250**	**-**	**-**	**-**	**8,198**	**-11,062**	**-2**	**426**	**53,810**

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.
[2] Notional amount of contingent liabilities and other commitments.

In contrast to the amount to be reported in the statement of financial position, the gross carrying amount of financial assets measured at fair value through other comprehensive income does not include the accumulated changes in fair value of €46 million (31 December 2020: €72 million).

The maximum default risk to which pbb Group is exposed is reflected in the net carrying amounts presented in the statement of financial position for financial assets measured at amortised cost, and in the fair values presented in the statement of financial position for financial assets measured at fair value through other comprehensive income.Loans and advances to customers of stage 3 were collateralised in an amount of €408 million as at the reporting date (31 December 2020: €342 million).

At pbb Group, contractual amounts outstanding of €0 million (31 December 2020: € 1 million) existed for financial assets that were written off in 2020 and that continue to be subject to enforcement measures.

Due to collateral provided, pbb Group did not recognise stage 3 credit loss allowances as at 31 December 2021 for credit-impaired financial instruments with a carrying amount of €140 million (31 December 2020: €87 million). The collateral is in the form of mortgages of properties in good locations and in state guarantees.

pbb Group did not hold any salvage acquisitions or other seized collateral as at 31 December 2021 and 31 December 2020.

51. Positive fair values of hedge accounting derivatives

Positive fair values of hedge accounting derivatives

in € million	31.12.2021	31.12.2020
Positive market values of hedge accounting derivatives	1,009	1,651
Total	**1,009**	**1,651**

52. Valuation adjustment from portfolio hedge accounting (assets)

The line item valuation adjustments from portfolio hedge accounting includes the positive fair values in relation to the hedged risks in the portfolios of hedged items. They amounted to €5 million as at 31 December 20210 (31 December 2020: €27 million).

53. Tangible assets

Development of tangible assets

			2021	2020
in € million	Operating equipment	Right of Use assets (IFRS 16)	Total	Total
Acquisition/production costs				
Balance at 1.1.	**15**	**43**	**58**	**58**
Additions	-	-	-	-
Balance at 31.12.	**15**	**43**	**58**	**58**
Depreciation and write-ups				
Balance at 1.1.	**-11**	**-9**	**-20**	**-13**
Amortisation	-1	-5	-6	-7
Balance at 31.12.	**-12**	**-14**	**-26**	**-20**
Carrying amounts				
Balance at 31.12.	**3**	**29**	**32**	**38**

54. Intangible assets

Development of intangible assets

in € million	Software acquired	Internally developed Software	Other intangible assets	2021 Total	2020 Total
Acquisition/production costs					
Balance at 1.1.	**38**	**81**	**9**	**128**	**115**
Additions	1	9	6	16	13
Reclassifications	-	4	-4	-	-
Disposals	-	-	-	-	-
Balance at 31.12.	**39**	**94**	**11**	**144**	**128**
Amortisation and write-ups					
Balance at 1.1.	**-24**	**-64**	**-**	**-88**	**-76**
Amortisation	-4	-10	-	-14	-12
Balance at 31.12.	**-28**	**-74**	**-**	**-102**	**-88**
Carrying amounts					
Balance at 31.12.	**11**	**20**	**11**	**42**	**40**

Research and development expenditure recognised as an expense amounted to €14 million (2020: €11 million).

55. Repurchase agreements

As a pledgor of genuine repurchase agreements, pbb Group has pledged assets with a book value of €5.7 billion (31 December 2020: €6.5 billion). The material part of the securities is still recognised as assets. The considerations which have been received amount to €8.3 billion (31 December 2020: €7.5 billion) and are recognised solely as liabilities measured at amortised cost. Assets in repurachse agreements are the only transferable assets the acquirer can sell or repledge in the absence of default.

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION (EQUITY AND LIABILITIES)

56. Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss

in € million	31.12.2021	31.12.2020
Negative fair values of stand-alone derivatives	559	596
Total	**559**	**596**

57. Financial liabilities at amortised cost

Financial liabilities at amortised cost

in € million	31.12.2021	31.12.2020
Liabilities to other banks	10,633	9,844
Liabilities to central banks	8,279	7,460
Registered Mortgage Pfandbriefe	349	291
Registered Public Pfandbriefe	502	518
Other registered securities	169	131
Other liabilities to other banks	1,334	1,444
Liabilities to customers	20,100	22,583
Registered Mortgage Pfandbriefe	3,682	4,316
Registered Public Pfandbriefe	7,939	9,112
Other registered securities	2,221	2,380
Other liabilities to customers	6,258	6,775
Bearer bonds	21,268	19,457
Money market instruments	-	120
Mortgage Pfandbriefe	12,291	10,716
Public Pfandbriefe	2,212	2,315
Other bearer bonds	6,765	6,306
Subordinated liabilities	655	686
Securitised subordinated liabilities	608	626
Non-securitised subordinated liabilities	47	60
Total	**52,656**	**52,570**

In its meeting on 10 December 2020, the ECB Governing Council decided to make available to the banks in the euro area three additional tranches of the Targeted Longer Term Refinancing Operations (TLTRO). As part of the rollover of its existing TLTRO III transactions, pbb Group participated in this programme with a total amount of €8.4 billion in June 2021, involving an increase in the nominal volume. In this context, in June 2021, pbb Group also issued Pfandbriefe totalling €0.7 billion to be pledged as collateral with the ECB. The variable interest rate on the TLTRO III, subject to reaching a defined level of net lending by 31 December 2021, equals the average interest rate on the deposit facility during the entire term. To the extent that certain criteria are met (in particular the increase in eligible net lending in comparison the benchmark), pbb Group receives an interest rate premium of 50 basis points on nominal volume for the special interest rate period (24 June 2021 to 23 June 2022). pbb Group met the requirements as at the balance sheet date and exceeded the lending target. pbb Group recognises this interest rate premium in accordance with IAS 20 as it constitutes a compensation for refinancing costs granted by the ECB in its capacity as a public-sector institution. Therefore, pbb Group recognises the interest rate premium pro rata temporis over the term of the special interest rate period, in accordance with the rules set out in IAS 20. Interest and interest rate premium are granted by the ECB in form of a (pro-rata) waiver of the principal debt. In 2021, pbb Group recorded interest and interest rate premium from the TLTRO III in the amount of €40 million each in net interest income. As at the reporting date, the carrying amount of the TLTRO III liabilities reported under liabilities to central banks amounted to €8.3 billion.

58. Negative fair values of hedge accounting derivatives

Negative fair values of hedge accounting derivatives

in € million	31.12.2021	31.12.2020
Negative market values of hedge derivatives	1,372	1,920
Total	**1,372**	**1,920**

59. Valuation adjustment from portfolio hedge accounting (liabilities)

The item “Valuation adjustment from portfolio hedge accounting (liabilities)” comprises negative fair values as regards the hedged risks in the hedged portfolios of hedged items. They totalled €70 million as at 31 December 2021 (31 December 2020: € 137 million).

60. Provisions

Provisions

in € million	31.12.2021	31.12.2020
Provisions for pensions and other post employment defined benefit obligations	109	127
Restructuring provisions	1	1
Provisions for off-balance-sheet lending business	16	17
Other provisions	105	101
Total	**231**	**246**

There are defined contribution and defined benefit plans for the employees of pbb Group. In the defined contribution plans pbb makes payments for commitments by industry-wide organisations. In almost all non-German entities, a defined percentage of fixed salary is paid into externally managed pension funds for employees as part of defined contribution pension schemes. Expenses in respect of defined contribution plans amounted €4 million (2020: €4 million). The expense is expected to remain stable in 2022. Expenses in respect of defined contribution plans for persons with a key function in the pbb Group (members of the Management Board and the Supervisory Board, members of senior management of subsidiaries which are material to the consolidated financial statements and their affiliated enterprises as well as close members of their families), amounted to less than €1 million (2020: less than €1 million). The employer’s contribution to the statutory pension insurance amounted to €5 million (2020: €5 million).

There are defined benefit pension commitments for many employees in Germany. There are no defined benefit pension commitments in the non-German entities. For the defined benefit plans the employees receive a direct commitment from their respective company. The receipt of retirement pensions or disability pensions starts after a vesting period is fulfilled, at the earliest after reaching a minimum age in the case of part of full incapacity for work, at the latest when goind into retirment, usually after completion of the 65th year of life. In case of active employees, there are predominatnly modern modular pension plans. For the other eligible persons there are also final salarybased defined benefit plans. The annual pension module depends, among other things, on the gross annual salary paid and the member’s length of service. The surviving dependant’s pension usually amounts to 60% of the pension of the spouse respectively the entitlement on that. The pension plan is administered by pbb itelf with the aid of an external service provider for the administration.

Pension provisions are recognised for obligations arising from direct commitments. The defined benefit plans have been principally closed for new entrants since 1 April 2004. There have been no plan amendments, curtailments and settlements in the years 2021 and 2020.

The risk of insolvency is covered within the framework of legal requirements by Pensionssicherungs-verein a. G. in relation to the total amount of pension obligations.

The following actuarial assumptions were used to measure the defined benefit pension obligations:

Actuarial assumptions

in %	31.12.2021/ 1.1.2022	31.12.2020/ 1.1.2021
Discount rate	1.31	1.00
Rate of increase in pension obligations	1.50	1.50
Rate of increase in future compensation and vested rights[1)]	2.50	2.50

1) Against the background of the adjustments of annual base salaries made in 2015 to a uniform amount of € 500,000 and the introduction of a variable remuneration component, pbb Group expects a rate of increase in future compensation and vested rights of 0%, also in view of the appropriateness of Management Board compensation for the active Management Board members in the financial years 2021 and 2020.

The rate of increase in career for members of the Management Board amounts 0.0% (31 December 2020: 0.0%), for directors and non-pay-scale staff 1.5% (31 December 2020: 1.5%) and for payscale staff 0.5% (31 December 2020: 0.5%). The guidance tables 2018G from Klaus Heubeck were used as the biometric basis.

The defined benefit pension commitments of pbb do not contain any unusual or entity-specific risks. pbb is faced by the common demographic risks, for example from longevity or invalidity of the entitled employees, and common financial risks like for example a change of the discount rate. pbb took out reinsurance to protect itself against parts of these risks. The reinsurance is a qualifying insurance policy in accordance with IAS 19 and thus is a plan asset. The fair value of plan assets is a component of the net liability from defined benefit plans which is deducted from the present value of the defined benefit obligation. The reinsurance does not consist of any unusual or plan-specific risks.

Principally, the pension payments of the reinsured pension obligations are funded by the income from the plan assets. If the income does not cover the pension payments pbb has to pay the pensions out of its own funds. For the non-reinsured pension obligations the payments are also made out of own funds.

Statement of financial position items (net defined benefit liability)

in € million	31.12.2021	31.12.2020
Present value of defined benefit obligation	286	306
Fair value of plan assets	-177	-179
Total	**109**	**127**

Development of net defined benefit liability

in € million	2021	2020
Balance at 1.1.	**127**	**121**
Pension expenses	5	5
Remeasurements	-16	5
Reclassifications in reimbursements	-2	1
Direct payments to beneficiaries	-5	-5
Balance at 31.12.	**109**	**127**

Development of defined benefit obligation

in € million	2021	2020
Balance at 1.1.	**306**	**303**
Current service costs	4	4
Interest expenses	3	4
Remeasurements	-14	7
Actuarial gains/losses from demographic assumptions	-	-
Actuarial gains/losses from financial assumptions	-13	6
Actuarial gains/losses from experience assumptions	-1	1
Payments to beneficiaries	-13	-12
Balance at 31.12.	**286**	**306**

Plan assets consist exclusively of reinsurance pledged to plan beneficiaries. The plan assets accordingly do not contain any own financial instruments or any own used tangible assets. No further material contributions to the plan assets are aimed in 2022. pbb does not use special asset-liability matching strategies to manage the pledged reinsurance.

Development of fair value of plan assets

in € million	2021	2020
Balance at 1.1.	**179**	**182**
Interest income	2	3
Remeasurements	2	2
Payments to beneficiaries	-8	-7
Reclassifications in/from reimbursements	2	-1
Balance at 31.12.	**177**	**179**

Development of pension expenses

in € million	2021	2020
Service costs	4	4
Current service costs	4	4
Net interest expenses	1	1
Interest expenses on defined benefit obligation	3	4
Interest income on plan assets	-2	-3
Total	**5**	**5**

Compared to 2021 a largely constant pension expense is expected for 2022. Pension expenses are part of general and administrative expenses.

Remeasurements of the net defined benefit liability result from actuarial gains and losses and the return on plan assets excluding amounts included in net interest on the net defined benefit liability.

Remeasurement recognised in other comprehensive income (equity)

in € million	2021	2020
Actuarial gains/losses from demographic assumptions	-	-
Actuarial gains/losses from financial assumptions	13	-6
Actuarial gains/losses from experience assumptions	1	-1
Remeasurements from plan assets	2	2
Total	**16**	**-5**

Development of reimbursement

in € million	2021	2020
Balance at 1.1.	**3**	**2**
Additions	-	1
Disposals	-2	-
Balance at 31.12.	**1**	**3**

The reimbursements result from unpledged reinsurance policies.

The quantitative sensitivity analysis – which uses the same measurement methods as the obligation recognised in the statement of financial position – for the material actuarial assumptions is as follows:

Actuarial assumptions

in € million	Change of sensitivity level (+ increase/- decrease)		Gross obligation 31.12.2021	Gross obligation 31.12.2020
Basic value of the calculation of sensitivity			286	306
Discount rate	in percentage points	+ 0.5	267	284
	in percentage points	- 0.5	309	331
Rate of increase in pension obligations	in percentage points	+ 0.5	303	324
	in percentage points	- 0.5	271	289
Rate of increase in future compensation and vested rights	in percentage points	+ 0.5	287	306
	in percentage points	- 0.5	286	306

The assumption of mortality only has an immaterial effect because the risk of longevity is mainly covered by plan assets.

The weighted average duration of the defined benefit obligations amounted to 14 years at 31 December 2021 (31 December 2020: 15 years).

Development of restructuring provisions and other provisions

in € million	Restructuring provisions	Other provisions
Balance at 1.1.2020	**1**	**133**
Additions	-	43
Reversals	-	-49
Amounts used	-	-26
Balance at 31.12.2020	**1**	**101**
Balance at 1.1.2021	**1**	**101**
Additions	-	35
Reversals	-	-11
Amounts used	-	-20
Balance at 31.12.2021	**1**	**105**

The restructuring provisions are expected to have been fully used by the end of 2022.

Provisions in off-balance sheet lending business primarily comprise provisions for guarantee risks, letters of credit, irrevocable loan commitments and litigation risks. The development of these provisions is presented in in detail in the Note “Financial assets at amortised cost after credit loss allowances (including claims from finance lease agreements)”.

The provisions for obligations from share-based payment transactions, reported as part of other provisions, are described in the Note “Related parties disclosures”.

Other provisions comprise those for legal and tax risks of €38 million (31 December 2020: € 44 million), and for legal expenses of €18 million (31 December 2020: € 19 million).

Legal Risks (Litigation Risks)
Given the nature of business and international expansion of activities and the large number of relevant requirements and regulations, pbb is involved in litigation, arbitration and administrative proceedings in some countries. pbb recognises provisions for the uncertain obligations arising from these proceedings if the potential outflow of resources is sufficiently likely and the amount of the obligation can be estimated. The probability of outflow of resources, which often cannot be estimated with certainty, is highly dependent on the outcome of the proceedings. The assessment of this probability and the quantification of the obligation are largely based on estimates. The actual liability can vary considerably from this estimate. Accounting for the individual legal procedure, pbb analyses developments of the individual case as well as of comparable cases. Depending on the significance and complexity of the respective case, pbb is drawing on its own expertise or opinions by external consultants and in particular by legal advisors. The provisions recognised for the proceedings are not reported separately as pbb believes that the outcome of the proceedings would be seriously compromised by their disclosure.

The profit participation certificates issued by the predecessor institutions participated in significant losses due to the net losses for the period incurred in the years 2008 et. seq. respectively pbb’s unappropriated retained losses since this time. The redemption amounts have reduced and interest payment has been suspended. Individual investors therefore initiated legal proceedings, contesting in particular various individual clauses relating to loss participation and replenishment following loss participation. The key questions in this connection are which balance sheet items must be taken into account to calculate loss participation and whether replenishment is required if pbb records a net income, unappropriated retained earnings or another income. Courts have decided against the legal opinion of pbb in view of the individual decisions regarding profit participation certificates. These proceedings resulted in a partial or comprehensive increase in redemption claims, or in the subsequent distribution of cancelled coupon payments or interest payment claims. There are no legal proceedings pending here, after the last reported legal proceeding with an amount in dispute of approximately €20 million plus interest was settled.

Hypo Real Estate Bank International AG, a predecessor institution of pbb, issued Credit Linked Notes (“CLNs”) in 2007, within the scope of the Estate UK-3 (“UK-3”) synthetic securitisation transaction. The CLNs were issued in order to hedge the credit risk exposure of a real estate loan portfolio in the UK. The real estate loan portfolio subsequently suffered a loan default. pbb envisaged allocating a resulting loss of GBP 113.8 million to the credit linked notes. Deloitte GmbH Wirtschafts-prüfungsgesellschaft, acted as the trustee of UK-3, expressed doubts with respect to the permissibility of the loss allocation. In June 2017, the trustee therefore appointed an independent expert to determine whether the conditions for a loss allocation were met. On 28 June 2019, the independent expert informed pbb Group on its findings. It found the allocation of the full amount of a credit loss of GBP 113.8 million permissible. According to the terms of the CLN, the determination of the expert is final and binding – except in the absence of manifest error. On 13 September 2019, the trustee confirmed that he had reviewed the expert's report and found no apparent inaccuracy. Accordingly, the trustee has informed pbb that in his opinion the intended loss allocation is permissible. The loss allocation was made on 20 September 2019 and results in a corresponding reduction of the repayment claim under the CLN. On 20 March 2020 the CLN have been repaid (Scheduled Final Maturity).

On 4 July 2017, the German Federal Court of Justice (Bundesgerichtshof, “BGH”) determined the inadmissibility of processing fees for corporate loans agreed upon by way of a standard form. pbb still believes that the financing parameters used for complex financing structures in

the lending business are generally subject to individual negotiations. pbb recognised sufficient provisions for all doubtful cases.

Moreover, no proceedings exist for which the Management Board believes the probability of an outflow of resources – or another impact on pbb Group's business activities – to be likely (or which are of material significance to pbb Group for other reasons) with an amount in dispute in excess of €5 million. However, pbb is subject to prudential proceedings, which bear the risk of a material outflow of resources, or another impact on pbb Group's business activities.

61. Other liabilities

Other liabilites include lease liabilites of €25 million. (1 January 2020: of €30 million).

62. Maturities of specific financial assets and liabilities

Maturities of specific financial assets and liabilities (without derivatives)

in € million	repayable on demand/ unspecified	up to 3 months	more than 3 months up to 1 year	more than 1 year up to 5 years	more than 5 years	Total
						31.12.2021
Cash reserve	6,607	-	-	-	-	6,607
Financial assets at fair value through profit or loss	3	5	6	288	338	640
Debt securities	-	-	-	88	44	132
Loans and advances to customers	-	5	6	200	294	505
Shares in investment funds qualified as debt instruments	3	-	-	-	-	3
Financial assets at fair value through other comprehensive income	-	22	16	665	555	1,258
Debt securities	-	16	10	397	520	943
Loans and advances to customers	-	6	6	268	35	315
Financial assets at amortised cost before credit loss allowances	1,121	2,982	5,747	18,577	19,822	48,249
Debt securities	-	182	813	1,696	4,202	6,893
Loans and advances to other banks	1,061	1,034	-	249	302	2,646
Loans and advances to customers	60	1,766	4,934	16,632	15,318	38,710
Total financial assets	**7,731**	**3,009**	**5,769**	**19,530**	**20,715**	**56,754**
Financial liabilities at amortised cost	1,785	3,278	5,089	26,187	16,317	52,656
Liabilities to other banks	649	23	345	8,962	654	10,633
Thereof: registered securities	-	12	79	490	439	1,020
Liabilities to customers	1,097	1,024	2,711	4,529	10,739	20,100
Thereof:registered securities	-	383	502	2,621	10,337	13,843
Bearer bonds	39	2,194	2,033	12,597	4,405	21,268
Subordinated liabilities	-	37	-	99	519	655
Total financial liabilities	**1,785**	**3,278**	**5,089**	**26,187**	**16,317**	**52,656**

Maturities of specific financial assets and liabilities (without derivatives)

						31.12.2020
in € million	repayable on demand/ unspecified	up to 3 months	more than 3 months up to 1 year	more than 1 year up to 5 years	more than 5 years	Total
Cash reserve	5,376	-	-	-	-	5,376
Financial assets at fair value through profit or loss	3	5	18	186	419	631
Debt securities	-	-	-	89	45	134
Loans and advances to customers	-	5	18	97	374	494
Shares in investment funds qualified as debt instruments	3	-	-	-	-	3
Financial assets at fair value through other comprehensive income	-	111	317	503	598	1,529
Debt securities	-	89	313	422	560	1,384
Loans and advances to customers [1]	-	22	4	81	38	145
Financial assets at amortised cost before credit loss allowances	1,344	1,984	5,068	19,514	20,803	48,713
Debt securities	-	107	330	2,332	4,712	7,481
Loans and advances to other banks	1,318	-	-	-	556	1,874
Loans and advances to customers[1]	26	1,877	4,738	17,182	15,535	39,358
Total of financial assets	**6,723**	**2,100**	**5,403**	**20,203**	**21,820**	**56,249**
Financial liabilities at amortised cost	2,136	1,570	4,946	25,929	17,989	52,570
Liabilities to other banks	864	23	94	8,092	771	9,844
Thereof: registered securities	-	10	2	386	542	940
Liabilities to customers	1,235	775	2,608	5,464	12,501	22,583
Thereof: registered securities	-	271	765	2,838	11,934	15,808
Bearer bonds	37	728	2,243	12,318	4,131	19,457
Subordinated liabilities	-	44	1	55	586	686
Total of financial liabilities	**2,136**	**1,570**	**4,946**	**25,929**	**17,989**	**52,570**

[1] Adjusted in accordance with IAS 8.42. Details are disclosed in note “Consistency.

63. Equity

Share capital equals the maximum liability of the shareholder for the liabilities of the corporation to its creditors. The share capital as of 31 December 2021 and during the entire financial year 2021 amounted to €380,376,059.67 which is divided into 134,475,308 ordinary bearer shares with no par value representing a theoretical interest in the share capital of approximately €2.83 per share. In the fiscal years 2021 and 2020, pbb did not hold any treasury shares.

Please refer to the disclosures pursuant to section 315a (1) HGB included in the “Supplemental Information” section of the Combined Management Report for information on authorised and contingent capital.

Additional paid-in capital includes contributions from a previous financial year as well as premiums from the issue of shares; except for an amount of €25,383,131.91 (31 December 2020: €25,383,131.91) the additional paid-in capital is freely available pursuant to section 272 (2) no. 4 HGB. Retained earnings were generally created only from net income of the current financial year or previous periods including the current consoliated profit.

Actuarial losses from pension obligations were reduced by €26 million, as the discount rate used for measurement increased to 1.31% as at 31 December 2021 (31 December 2020: 1.00%) in line with the development of market interest rates. Items that may be reclassified to profit or loss consisting of gains/losses on cash flow hedge accounting and from financial instruments at fair value through other comprehensive income burdened accumulated other comprehensive income by €27 million in total compared to 31 December 2020.

The additional equity instruments include Additional Tier 1 (AT1) capital in the total nominal amount of €300 million less transaction costs of €2 million. AT1 capital qualifies as equity because there is no obligation to repay, or to make debt servicing payments on an ongoing basis. The bond issued by pbb in 2018 carries an initial coupon of 5.75% and has no final maturity. There are certain conditions attached to the coupon payments. The coupon on the AT1-capital of €17 million payed in April 2021 reduced retained earnings and is disclosed separately in the statement of changes in equity.

Caisse des Dépôts et Consignation's (CDC) stake in CAPVERIANT GmbH resulted in non-controlling interest income of €4 million as at the date of acquisition, with a positive effect of €1 million to be recognised directly in retained earnings.

Pursuant to a resolution adopted by the Annual General Meeting on 12 May 2021, pbb paid a dividend of €0.26 per share entitled to dividends (€35 million) to its shareholders. Moreover, a payout of a further dividend of €0.32 per share entitled to dividends (€43 million) was resolved at the Extraordinary General Meeting on 10 December 2021. This corresponds to total dividends for the 2020 financial year of €0.58 per share entitled to dividends (€78 million).

64. Trust business

As at 31 December 2021 and 31 December 2020, there were no trust assets or liabilities reported in the statement of financial position.

NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

65. Disclosures to the items in the consolidated statement of cash flows

The consolidated statement of cash flows shows the cash flows of the financial year broken down by operating activities, investing activities and financing activities. Cash and cash equivalents correspond to the balance sheet item cash reserve, and include cash in hand and credit balances at central banks.

Operating activities are defined broadly, and correspond to operating result. Cash flow from operating activities includes payments (inflows and outflows) attributable financial assets at fair value through profit or loss/positive fair values of hedging derivatives, financial assets at fair value through other comprehensive income, financial assets at amortised cost and other assets. Inflows and outflows attributable to financial liabilities measured at fair value through profit or loss/negative fair values from hedging derivatives, liabilities measured at amortised cost (without inflows/outflows from subordinated liabilities) and other liabilities are also included under operating activities. The interest and dividend payments resulting from operating activities are shown under cash flow from operating activities. This also relates to cash flows frum subordinated liabilities. In addition, payments for the interest portion of lease liabilities as well as short-term lease contracts with a maturity of less than 12 months are part of the cash flow from operating activities.

Cash flow from investing activities comprises payments for investment and security holdings as well as for tangible and intangible assets.

Cash flow from financing activities comprises inflows from capital increases, payments into reserves and silent participations, inflows and outflows for subordinated capital as well as payments for the amortisation part of lease liabilities.

Liabilities development from financing activities

in € million	2021	2020
Subordinated liabilities		
Balance at 1.1.	**686**	**703**
changes from financing cash flows	-28	-16
Other changes	-3	-1
Balance at 31.12.	**655**	**686**

NOTES TO DERIVATIVE TRANSACTIONS AND HEDGED ITEMS IN HEDGE ACCOUNTING

Risks are the possibilities to deviate from the planned future targets resulting from unpredictability of the future and disruptions. Interest rate risks and foreign exchange risks are primarily relevant for pbb Group. These arise from open positions for example in the case of mismatches of maturities or the variability respectively fixing of interest rates. Interest rate risks and in to a lesser extent foreign exchange risks are accounted in hedge accounting. Other risks of the hedged items like for example credit risk are not accounted in hedge accounting but are controlled bank wide.

Generally pbb Group hedges interest rate risks. However, in individual cases this may not be possible or sensible. The hedge ratio is determined in relation to the expectation for example of the interest rate development or the costs of hedging. If the risk is not hedged completely for example because the interest rate of the underlying asset does not match completely with the interest rate of the hedging instrument hedge ineffectiveness may arise. A further source of ineffectiveness may be different credit risks of the counterparties of the hedged item and hedging instrument.

pbb Group uses IASB's issuance "Interest Rate Benchmark Reform – Amendments to IFRS 9, IAS 39 and IFRS 7" from September 2019 for the assessment of the retrospective and prospective effectiveness of hedge relationships. According to the changes accounting hedge relationships principally can be continued respectively further designated despite of the expected effects from the IBOR reform.

Hedging relationships between financial instruments are classified as a fair value hedge, a cash flow hedge or hedge of a net investment in a foreign operation in accordance with IAS 39. Hedging instruments used to hedge interest rate risks are mainly interest rate derivatives, for example interest rate swaps and interest rate options.

Specific disclosures required by IFRS 7 are shown in the risk and opportunity report, amongst others about credit risk, market risk and liquidity risk.

Fair Value Hedge Accounting Under IAS 39, with a fair value hedge, a recognised asset, a recognised liability, offbalance-sheet fixed obligation or a precisely designated part of such an asset, liability or obligation, is hedged against the risk of a change in fair value which is attributable to a specific risk and possibly has an effect on profit or loss for the period.

If the hedge of the fair value in the course of the reporting period meets the criteria of IAS 39.88, the hedge is accounted as follows:

> The profit or loss arising when the hedging instrument is remeasured at fair value (for a derivative hedging instrument) or the currency component of its carrying amount measured in accor-dance with IAS 21 (for non-derivative hedging instruments) is recognised in profit or loss for the period and
> The carrying amount of a hedged item is adjusted affecting profit or loss by the profit or loss arising from the hedged item and attributable to the hedged risks. This is applicable if the hedged item is otherwise measured at cost. The profit or loss attributable to the hedged risk is recognised in profit or loss for the period if the hedged

item is an a financial asset measured at fair value through other comprehensive income. The amortisation of the hedge adjustment is started on the date of the revoking of the hedge relationship.

pbb Group uses fair value hedge accounting for accounting micro-hedge and macro-hedge relationships.

Interest rate risks are hedged under micro fair value hedge accounting. Any ineffectiveness within the permissible range pursuant to IAS 39 is reported under net income from hedging relationships. Positive and negative market values of hedging instruments are reported at fair value in positive fair value of hedge accounting derivatives or negative fair values of hedge accounting derivatives, respectively. The adjustment of the hedged item's carrying amount by the profit or loss attributable to the hedged risk directly affects the hedged item. The retrospective effectiveness test is conducted using the regression analysis. The dollar-offset method is used to quantify prospective ineffectiveness. If the hedge relationship is terminated for reasons other than the derecognition of the hedged item, the difference between the carrying amount of the hedged item at that point and the value at which it would have been carried, had the hedge never existed (the unamortised fair value adjustment), is amortised through profit or loss over the remaining term of the original hedge and recognised in net interest income. If the hedged item is derecognised, e. g. due to disposal or repayment, the unamortised fair value adjustment is recognised immediately in profit or loss.

In the context of portfolio hedge accounting within the meaning of IAS 39, interest rate risks from loans and advances as well as from liabilities are hedged on a portfolio basis. The portfolio hedge accounting is aimed to account the effects from the macro interest steering for hedged positions. The fair values as regards the hedged risks in the hedged cash flows of the portfolios of hedged items are reported either on the assets or on the liabilities side as valuation adjustments from portfolio hedge accounting. The changes in the fair value of hedged risks from the portfolios of hedged items are recognised in net income from hedging relationships. The market values of hedging instruments are recognised in statement of financial position at fair value in positive fair values of hedge accounting derivatives or negative fair values of hedge accounting derivatives, respectively. The changes in value are shown in net income from hedging relationships, thus largely compensating the effect on profit or loss from the valuation of the cash flows from the portfolios of hedged items. The cash flows from the portfolios of hedged items are determined monthly within the framework of a dynamic hedge designation and discontinuation process. The resulting valuation adjustments are amortised over the remaining term of the time band and recognised in net interest income. In case of a derecognition of cash flows of hedged items from the portfolio of hedged items, the associated valuation adjustment is reversed on a pro-rata basis and recognised in net interest income.

Cashflow Hedge Accounting According to IAS 39, a cash flow hedge is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with the recognised asset or liability (for instance some or all future interest payments on variable-interest debt) or a highly probable forecast transaction that could affect profit or loss.

Under cash flow hedge accounting, hedging instruments are measured at fair value. The measurement result has to be broken down into an effective and an ineffective portion of the hedge relationship. As at 31 December 2021, and 31 December 2020, pbb Group did not designate any derivatives to cash flow hedges. The cash flow hedge reserve remaining from designations will be reversed in line with the hedged cash flows from underlying transactions. pbb applies a prospective effectiveness test every quarter. In case ineffectiveness is discovered, the cash flow hedge reserve is reversed through profit or loss.

66. Derivative transactions

In order to minimize (reduce) both the economic and the regulatory credit risk, bilateral netting agreements have been concluded. By means of such netting agreements, the positive and negative fair values of the derivatives contracts included under the master agreement can be offset against one another, and the future regulatory risk add-ons for these products can be reduced. Through this netting process, the credit risk is limited to a single net claim on the party to the contract.

For both regulatory reports and the internal measurement and monitoring of the credit commitments, such risk-reducing techniques are utilised only if they are considered to be enforceable under the respective legal system in the event that the business associate becomes insolvent. Legal advice is taken in order to check enforceability.

Similar to the master agreements, pbb Group concludes collateral agreements with its business associates to collateralise the net claim or liability remaining after netting (obtained or pledged collateral). Usually, this colalteral management (by depositing cash collateral) reduces credit risk by means of prompt measurement and adjustment of the exposure to the customers.

Volume of derivatives as of 31 December 2021	Nominal amount				Fair value/carrying amount		
	Remaining maturities						Fair value change for effectiveness calculation
in € million	up to 1 year	more than 1 to 5 years	more than 5 years	**Total**	positive	negative	
Stand-alone derivatives [1]	**6,696**	**8,485**	**1,680**	**16,861**	**540**	**559**	
Interest rate derivatives	3,480	8,127	1,680	13,287	534	525	
OTC derivatives	3,480	8,127	1,680	13,287	534	525	
Interest rate swaps	763	4,148	1,535	6,446	524	514	
Interest rate options	2,717	3,979	145	6,841	10	11	
Currency derivatives	2,779	-	-	2,779	4	22	
OTC derivatives	2,779	-	-	2,779	4	22	
Forward currency transactions	2,779	-	-	2,779	4	22	
Other derivatives	437	358	-	795	2	12	
Cross currency basis swaps	437	358	-	795	2	12	
Derivatives in fair value hedge accounting [2][3]	**7,092**	**15,617**	**21,832**	**44,541**	**1,009**	**1,372**	**-84**
Interest rate derivatives	7,092	15,607	21,503	44,202	1,006	1,360	-96
OTC derivatives	7,092	15,607	21,503	44,202	1,006	1,360	-96
Interest rate swaps	6,259	15,138	20,474	41,871	1,006	1,322	-112
Interest rate options	833	469	1,029	2,331	-	38	16
Other derivatives	-	10	329	339	3	12	12
Cross currency basis swaps	-	10	329	339	3	12	12

[1] In statement of financial position disclosed under “Financial assets at fair value through profit or loss” respectively “Financial liabilities at fair value through profit or loss”.
[2] In statement of financial position disclosed under “Positive fair values of hedge accounting derivatives” respectively “Negative fair values of hedge accounting derivatives”.
[3] Including exposure to Eurex Clearing AG after netting of derivatives and cash collateral, regardless of their use. Netting with Eurex derivatives in the amount of €9.7 billion led to a reclassification from stand-alone derivatives to the derivatives under fair value hedge accounting.

Volume of derivatives as of 31 December 2020	Nominal amount				Fair value/carrying amount		
	Remaining maturities						Fair value change for effectiveness calculation
in € million	up to 1 year	more than 1 to 5 years	more than 5 years	Total	positive	negative	
Stand-alone derivatives [1]	**6,813**	**10,369**	**1,944**	**19,126**	**737**	**596**	
Interest rate derivatives	2,385	9,742	1,935	14,062	676	571	
OTC derivatives	2,385	9,742	1,935	14,062	676	571	
Interest rate swaps	776	4,774	1,769	7,319	675	569	
Interest rate options	1,609	4,968	166	6,743	1	2	
Currency derivatives	3,733	-	-	3,733	37	16	
OTC derivatives	3,733	-	-	3,733	37	16	
Forward currency transactions	3,733	-	-	3,733	37	16	
Other derivatives	695	627	9	1,331	24	9	
Cross currency basis swaps	695	627	9	1,331	24	9	
Derivatives in fair value hedge accounting [2][3]	**4,861**	**16,848**	**22,752**	**44,461**	**1,651**	**1,920**	**-175**
Interest rate derivatives	4,861	16,848	22,412	44,121	1,650	1,892	-169
OTC derivatives	4,861	16,848	22,412	44,121	1,650	1,892	-169
Interest rate swaps	4,657	15,772	21,251	41,680	1,650	1,833	-143
Interest rate options	204	1,076	1,161	2,441	-	59	-26
Other derivatives	-	-	340	340	1	28	-6
Cross currency basis swaps	-	-	340	340	1	28	-6

[1] In statement of financial position disclosed under “Financial assets at fair value through profit or loss” respectively “Financial liabilities at fair value through profit or loss”.
[2] In statement of financial position disclosed under “Positive fair values of hedge accounting derivatives” respectively “Negative fair values of hedge accounting derivatives”.
[3] Including exposure to Eurex Clearing AG after netting of derivatives and cash collateral, regardless of their use. Netting with Eurex derivatives in the amount of €9.7 billion led to a reclassification from stand-alone derivatives to the derivatives under fair value hedge accounting.

The fair value change for the effectiveness test of derivatives in portfolio hedge accounting that were netted against Eurex AG amounted to €-19 million in 2021 and resulted from interest rate derivatives/interest rate swaps (2020: €67 million from interest rate derivatives/interest rate swaps).

Counterparties	**31.12.2021**		**31.12.2020**	
	Fair value		Fair value	
in € million	positiv	negativ	positiv	negativ
Central governments and central banks of OECD member states	8	-	258	24
OECD banks	1,471	1,826	1,957	2,396
OECD financial institutions	40	82	62	94
Other companies and private individuals	30	23	111	2
Total	**1,549**	**1,931**	**2,388**	**2,516**

The reserve for cash flow hedge accounting, where derivatives were no longer designated in the financial years 2021 and 2020, amounted to €-28 million (31 December 2020: €-22 million) after deferred taxes. In 2021, €–6 million (2020: €–7 million) before taxes was reclassified from the cash flow hedge reserve to net interest income.

67. Hedged items under Hedge Accounting

Hedged items under Hedge Accounting 31 December 2021

in € million	Micro fair value hedge				Potfolio hedge	
		thereof:				
	Carrying amount	hedge adjustment included in carrying amount	hedge adjustment remaining after discontinuation of hedging relationship	Value change for the effectiveness test in the period	Valuation adjustment	Change for effectiveness calculation in reporting period
Financial assets at fair value through other comprehensive income	459	37	32	-18	-	-
Interest related hedge accounting	459	37	32	-18	-	-
Financial assets at amortised cost	15,518	1,704	1,146	-800	5	-18
Interest related hedge accounting	15,223	1,687	1,146	-788	5	-18
Currency related hedge accounting	295	17	-	-12	-	-
Financial liabilities measured at amortised cost	22,342	1,526	741	903	70	36
Interest related hedge accounting	22,342	1,526	741	903	70	36

Hedged items under Hedge Accounting 31 December 2020

in € million	Micro fair value hedge				Potfolio hedge	
		thereof:				
	Carrying amount	hedge adjustment included in carrying amount	hedge adjustment remaining after discontinuation of hedging relationship	Value change for the effectiveness test in the period	Valuation adjustment	Change for effectiveness calculation in reporting period
Financial assets at fair value through other comprehensive income	603	57	41	2	-	-
Interest related hedge accounting	603	57	41	2	-	-
Financial assets at amortised cost	17,100	2,498	1,301	483	27	14
Interest related hedge accounting	16,793	2,470	1,301	477	27	14
Currency related hedge accounting	307	28	-	6	-	-
Financial liabilities measured at amortised cost	23,248	2,456	869	-306	137	-81
Interest related hedge accounting	23,248	2,456	869	-306	137	-81

The item “Valuation adjustment from portfolio hedge accounting (assets)” comprises fair values as regards the hedged risks in the hedged cash flows from the portfolios of hedged items (assets). The item “Valuation adjustment from portfolio hedge accounting (liabilities)” comprises fair values as regards the hedged risks in the hedged cash flows from the portfolios of hedged items (liabilities).

Ineffectiveness of the hedge [1)]

in € million	2021	2020
Result from micro fair value hedge accounting (interest rate risk)	1	4
Result from portfolio hedge accounting (interest rate risk)	-1	-
Total	**-**	**4**

[1)] Reported in net income from hedge accounting.

IBOR-Reform

Interbank offered rates (IBOR) are used as reference rates when determining the prices of numerous financial instruments and calculating the related cash flows. Given the weaknesses of interbank rates used to date, which became evident for the first time as part of the LIBOR scandal, legislators and regulatory authorities worldwide have been working on establishing a system of transaction-based risk-free reference interest rates. In the EU, the EU Benchmark Regulation (EU BMR), which has been in force since 1 January 2018, provides the legal foundation for this matter. Specifically, IBOR rates have been replaced by alternative reference

rates – especially by risk-free overnight interest rates based on actual transactions, determined as an average rate for overnight interbank deposits (borrowings) or for deposits from large customers. For example alternative reference interest rates – based on the risk-free overnight interest rates SONIA, SOFR and SARON – have been established in the GBP, USD and CHF currency areas.

To meet challenges resulting from the replacement of existing IBOR reference rates, pbb Group launched a cross-divisional project for implementation of the IBOR reform already back in 2018. The project team regularly reports to pbb Group's Management Board. Topics addressed by the project include finding fallback rules for discontinued reference rates, the changeover of LIBOR-based business, as well as several operational issues. For instance, all new contracts pbb Group has entered into since 2019 which relate to a reference interest rate affected by the IBOR reform include a fallback provision that facilitates a swift changeover to a substitute reference rate preferred by regulators or established in the market. In some cases, fallback provisions for derivatives and financial liabilities were already agreed upon under framework or individual agreements. Moreover, pbb Group is monitoring the development of alternative reference rates discussed by supervisory authorities and market participants very closely indeed, in order to be able to assess the resulting impact upon pbb Group at an early stage. Already in 2020 pbb Group implemented a changeover to the new risk-free interest rates for all products with respect to the fair value discount curves used for discounting, measurement and its risk models.

In anticipation of the termination of the GBP-LIBOR publication, the Bank of England introduced deadlines for the changeover to alternative interest rates that market participants have to adhere to. In compliance with these requirements and based on the common recommendation issued by the European Commission, the EBA, the ECB and the ESMA, pbb Group has discontinued new business in GBP-LIBOR as well as in EUR-LIBOR and CHF-LIBOR from the second quarter of 2021 and instead offered an alternative interest rate. In this context, the recommendations as well as the conventions currently emerging on the market were taken into account. Moreover, in the financial year 2021, the transition of the existing LIBOR contracts based on GBP, EUR and CHF to alternative interest rates was conducted. The transition of a small number of contracts will be made early in 2022 prior to the first coupon fixing. The transition from USD LIBOR (which is unlikely to be discontinued before the end of the first half of 2023) to alternative interest rates will be executed mainly on the same basis which is used for GBP.

The EURIBOR calculation methodology was already revised in 2019: The European Money Markets Institute (EMMI) has determined and disseminated EURIBOR reference rates since July 2019. Thanks to the EU-BMR conformity of the revised EURIBOR reference rates, market participants (including pbb Group) are be able to use EURIBOR reference rates until further notice, for both existing and new contracts. pbb Group expects that the EURIBOR interest rate will remain as a reference interest rate for at least the next few years. However, pbb Group is following developments in supervision and the market very closely - for example, the consultation process of the ECB's working group, the Belgian Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA), and the European Commission as regards alternative interest rates on the basis of a weighted €STR product.

The IASB has launched a two-phase project to address the potential impact of IBOR reform on financial reporting. Phase 1 of the project was concluded in September 2019, with the publication of an announcement. Communicated amendments to IFRS 9, IAS 39 and IFRS 7 grant a temporary exemption from applying specific hedge-accounting requirements on hedges directly affected by the IBOR reform. pbb Group plans to continue applying the IASB's phase 1 announcement until uncertainty concerning the timing and amount of underlying cash flows, as a result of the IBOR reform and the expected replacement of the various reference rates, has been removed.

Phase 2 of the IASB's IBOR reform project was completed on 27 August 2020, upon the publication of "Interest Rate Benchmark Reform – Phase 2, Amendments to IFRS 9, IAS 39, IFRS 7,

IFRS 4 and IFRS 16". In particular, the amendments provide practical expedients in relation to changes that are required by the IBOR reform. Moreover, recognised hedging relationships (hedge accounting) may generally be continued despite a replacement of the reference interest rate. pbb Group expects that, as a result of the application of the amendments, the Group may continue to recognise or designate the existing recognised hedging relationships in relation to the interest rate risk – even in case of a replacement of existing reference interest rates. These changes did not have material effects on the consolidated financial statments in 2021.

As of reporting day, pbb Group has designated derivatives in hedging relationships in relation to interest rate risks (micro- and macro fair value hedge) with following reference rates:

Notional volume of hedged items as of 31 December 2021

	Maturities			
in € million	up to 1 year	more than 1 year up to 5 years	more than 5 years	**Total**
EURIBOR (currency EUR)	3,312	7,756	17,552	28,620
LIBOR (currency USD)	574	274	253	1,101
STIBOR (currency SEK)	398	804	-	1,202
€STR (currency EUR)	51	5	741	797
SONIA (currency GBP)	298	83	311	692
SARON (currency CHF)	-	368	115	483
SOFR (currency USD)	-	1,428	19	1,447

Notional volume of hedged items as of 31 December 2020

	Maturities			
in € million	up to 1 year	more than 1 year up to 5 years	more than 5 years	**Total**
EURIBOR (currency EUR)	1,310	10,072	17,449	28,831
LIBOR (currency EUR)	66	56	742	864
LIBOR (currency GBP)	278	356	295	929
LIBOR (currency USD)	499	923	262	1,684
LIBOR (currency CHF)	154	330	130	614
STIBOR (currency SEK)	187	1,253	-	1,440
OIBOR (currency NOK)	-	51	-	51

The above tables also includes EURIBOR derivatives for the sake of completeness. pbb Group assumes that, due to their EU-BMR compliance, the EURIBOR interest rates will remain as reference rates until further notice. The above hedging instruments approximately reflect the interest rate risk of pbb Group managed by means of hedges.

As of the balance sheet date, pbb Group did not hold any swap transactions based on EONIA interest rates as a hedging instrument as part of a hedge in accordance with IAS 39.

OTHER NOTES TO THE FINANCIAL INTRUMENTS

68. Undiscounted cash flows of financial liabilities

Contractually agreed undiscounted cash flows of the financial liabilities according to IFRS 7.39

in € billion	31.12.2021	31.12.2020
Up to 3 months	4	3
From derivative financial instruments	-	-
From non-derivative financial instruments	4	3
More than 3 months to 1 year	6	5
From derivative financial instruments	-	-
From non-derivative financial instruments	6	5
More than 1year to 5 years	29	29
From derivative financial instruments	1	1
From non-derivative financial instruments	28	28
More than 5 years	18	19
From derivative financial instruments	1	1
From non-derivative financial instruments	17	18
Total	**57**	**56**

The undiscounted cash flows are presented in accordance with the contractually maturity, meaning that options or termination rights are not taken into account. This presentation does not reflect the economic management which is based on expected cash flows. The liquidity risk strategy and management of pbb Group is described in the Risk and Opportunity Report.

69. Assets assigned or pledged as collateral

Assets (without cash collaterals) have been pledged as collateral for the following liabilities and received collaterals:

Liabilities

in € million	31.12.2021	31.12.2020
Financial liabilities measured at amortised cost	8,564	7,760
Total	**8,564**	**7,760**

The following assets were pledged as collateral for the aforementioned liabilities:

Assets pledged

in € million	31.12.2021	31.12.2020
Financial assets at fair value through other comprehensive income	818	1,296
Financial assets at amortised cost	5,141	5,468
Total	**5,959**	**6,764**

The assets pledged mainly resulted from repurchase agreements. The transactions were carried out at the normal standard terms for repurchase transactions and concluded on an arm's-length basis.

In addition, cash collateral was provided in a total amount of €36 million (31 December 2020: €31 million) for the irrevocable payment obligations to the German Federal Agency for Financial Market Stabilisation (Finanzmarktstabilisierungsanstalt – "FMSA") resulting from the bank levy, and to the deposit guarantee scheme of German banks.

70. Collaterals permitted to resell or repledge

As of 31 December 2021 and as of 31 December 2020 there were no collaterals that may be resold or repledged in the absence of default.

71. Transfer of financial assets

When pbb Group transfers financial assets that do not qualify for derecognition (see also Note "Financial Instruments"), they continue to be reported in the statement of financial position.

Transfer of financial assets as of 31 December 2021

in € million	Transferred financial assets that are not derecognised in their entirety			
	Transferred assets		Corresponding liabilities	
	Carrying amounts	thereof: Repo transactions	**Carrying amounts**	thereof: Repo transactions
Financial assets at fair value through other comprehensive income	818	818	769	769
Debt securities	670	670	630	630
Loans and advances to other banks	148	148	139	139
Financial assets at amortised cost	5,141	4,857	4,850	4,565
Debt securities	4,857	4,857	4,565	4,565
Loans and advances to customers	284	-	285	-
Total	**5,959**	**5,675**	**5,619**	**5,334**

Transfer of financial assets as of 31 December 2020

in € million	Transferred financial assets that are not derecognised in their entirety			
	Transferred assets		Corresponding liabilities	
	Carrying amounts	thereof: Repo transactions	**Carrying amounts**	thereof: Repo transactions
Financial assets at fair value through other comprehensive income	1,296	1,296	1,228	1,228
Debt securities	1,245	1,245	1,179	1,179
Loans and advances to other banks	51	51	49	49
Financial assets at amortised cost	5,468	5,167	5,196	4,896
Debt securities	5,167	5,167	4,896	4,896
Loans and advances to customers	301	-	300	-
Total	**6,764**	**6,463**	**6,424**	**6,124**

At balance sheet date the fair value of financial assets at amortised cost amounted to €5,252 million (31 December 2020: €5,628 million). The fair value of the corresponding liabilities amounted to €4,910 million (31 December 2020: €5,229 million). The net position from the fair values of assets and liabilities amounted to €342 million (31 December 2020: €399 million). pbb Group does not derecognise these financial assets, since not substantially all risks (in particular credit risk) and rewards of ownership are transferred.

In addition, securities with a carrying amount of €170 million (31 December 2020: €116 million) were transferred to Eurex as a collateral for clearing fund contribution and initial margin for derivative transactions.

pbb Group generally has no countinuing involvement in transferred and derecognised financial assets.

72. Fair values of financial instruments

The fair value of financial instruments, in the opinion of pbb Group, is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (exit price). The fair values were determined as of the balance sheet date based on the market information available and on valuation methods described here.

All financial assets and liabilities that are measured at fair value are grouped into the three fair value hierarchies by pbb Group. Reclassifications within the fair value hierarchy are made at the end of the reporting period. The three-level hierarchy is based on the degree to which the input for the fair value measurement is observable:

> Level 1 – quoted priced (unadjusted) in active markets for identical financial assets or financial liabilities (market prices)
> Level 2 – inputs that are observable either directly or indirectly, other than quoted prices included within Level 1
> Level 3 – valuation techniques that include inputs that are not based on observable market data (unobservable inputs)

Fair values and fair value hierarchy of financial instruments

in € million					31.12.2021
					Fair value
	Carrying amount	Fair value	Level 1	Level 2	Level 3
Assets in the scope of IFRS 13	**58,146**	**59,208**	**11,724**	**18,308**	**29,176**
Measured at fair value in the statement of financial position	3,447	3,447	919	2,154	374
Financial assets at fair value through profit or loss	1,180	1,180	3	831	346
Positive fair values of stand-alone derivatives	540	540	-	540	-
Debt securities	132	132	-	132	-
Loans and advances to customers	505	505	-	159	346
Shares in investment funds qualified as debt instruments	3	3	3	-	-
Financial assets at fair value through other comprehensive income	1,258	1,258	916	314	28
Debt securities	943	943	916	-	27
Loans and advances to customers	315	315	-	314	1
Positive fair values of hedge accounting derivatives	1,009	1,009	-	1,009	-
Not measured at fair value in the statement of financial position	54,699	55,761	10,805	16,154	28,802
Cash reserve	6,607	6,607	6,607	-	-
Financial assets at amortised cost[1)]	48,087	49,154	4,198	16,154	28,802
Debt securities	6,890	6,989	3,143	3,065	781
Loans and advances to other banks	2,646	2,664	994	1,603	67
Loans and advances to customers	38,371	39,313	61	11,298	27,954
Claims from finance lease arrangements	180	188	-	188	-
Valuation adjustment from porfolio hedge accounting (assets)	5	-	-	-	-
Liabilities in the scope of IFRS 13	**54,657**	**55,468**	**18,291**	**20,010**	**17,167**
Measured at fair value in the statement of financial position	1,931	1,931	-	1,931	-
Financial liabilities at fair value through profit or loss	559	559	-	559	-
Negative fair values of stand-alone derivatives	559	559	-	559	-
Negative fair values of hedge accounting derivatives	1,372	1,372	-	1,372	-
Not measured at fair value in the statement of financial position	52,726	53,537	18,291	18,079	17,167
Financial liabilities measured at amortised cost	52,656	53,537	18,291	18,079	17,167
Liabilities to other banks	10,633	10,673	649	1,321	8,703
Liabilities to customers	20,100	20,708	15	12,683	8,010
Bearer bonds	21,268	21,474	17,154	4,010	310
Subordinated liabilities	655	682	473	65	144
Valuation adjustment from porfolio hedge accounting (liabilities)	70	-	-	-	-

[1)] Less credit loss allowances.

Fair values and fair value hierarchy of financial instruments

in € million	Carrying amount	Fair value	Level 1	Level 2	Level 3
					31.12.2020
					Fair Value
Assets in the scope of IFRS 13	**58,620**	**60,254**	**11,675**	**18,075**	**30,504**
Measured at fair value in the statement of financial position	4,548	4,548	1,331	2,832	385
Financial assets at fair value through profit or loss	1,368	1,368	3	1,038	327
Positive fair values of stand-alone derivatives	737	737	-	737	-
Debt securities	134	134	-	134	-
Loans and advances to customers	494	494	-	167	327
Shares in investment funds qualified as debt instruments	3	3	3	-	-
Financial assets at fair value through other comprehensive income	1,529	1,529	1,328	143	58
Debt securities	1,384	1,384	1,328	-	56
Loans and advances to customers	145	145	-	143	2
Positive fair values of hedge accounting derivatives	1,651	1,651	-	1,651	-
Not measured at fair value in the statement of financial position	54,072	55,706	10,344	15,243	30,119
Cash reserve	5,376	5,376	5,376	-	-
Financial assets at amortised cost[1]	48,669	50,330	4,968	15,243	30,119
Debt securities	7,479	7,609	3,650	2,011	1,948
Loans and advances to other banks	1,874	1,893	1,292	575	26
Loans and advances to customers[2]	39,116	40,619	26	12,448	28,145
Claims from finance lease agreements	200	209	-	209	-
Valuation adjustment from porfolio hedge accounting (assets)	27	-	-	-	-
Liabilities in the scope of IFRS 13	**55,223**	**56,405**	**16,941**	**26,426**	**13,038**
Measured at fair value in the statement of financial position	2,516	2,516	-	2,504	12
Financial liabilities at fair value through profit or loss	596	596	-	584	12
Negative fair values of stand-alone derivatives	596	596	-	584	12
Negative fair values of hedge accounting derivatives	1,920	1,920	-	1,920	-
Not measured at fair value in the statement of financial position	52,707	53,889	16,941	23,922	13,026
Financial liabilities measured at amortised cost	52,570	53,889	16,941	23,922	13,026
Liabilities to other banks	9,844	9,920	863	1,512	7,545
Liabilities to customers	22,583	23,423	231	17,926	5,266
Bearer bonds	19,457	19,844	15,382	4,420	42
Subordinated liabilities	686	702	465	64	173
Valuation adjustment from porfolio hedge accounting (liabilities)	137	-	-	-	-

[1] Less credit loss allowances.
[2] Adjusted in accordance with IAS 8.42. Details are disclosed in note "Consistency.

According to the general principles of IFRS 13 concerning fair value measurement techniques, an entity shall, in all cases, maximise the use of relevant observable inputs and minimise the use of unobservable inputs. All financial assets and liabilities measured at fair value are assigned to one level of the fair value hierarchy, depending on the respective inputs used.

Disclosures to the measurement methods and input parameters

Measurement Process Both the Finance and the Risk Management & Control divisions play a role in the measurement process. The Finance division supplies accounting data. This includes:

> identification data, such as business identification numbers or International Securities Identification Numbers (ISINs)
> static data such as notional amounts, name and country of the counterparty and (remaining) terms
> accounting data such as carrying amounts, accruals and the effects of hedge accounting

Risk Management & Control calculates additional data used to measure fair value such as interest rates, credit spreads and market prices, as well as internal ratings and LGDs for certain financial instruments.).

Risk Management & Control uses the determined input parameters to calculate (and provide to Finance) the fair value or measurement price of financial instruments based on accepted and validated measurement methods. Finance consolidates the data received from Risk Management & Control with the data held for accounting and reporting purposes, and verifies completeness.

Level 2 instruments measured at fair value as of 31 December 2021

Measurement methods	Observable parameter
DCF methods	Euro zone inflation rates
(discounted cash flow)	Reference interest rates
	Saisonalities of Euro zone inflation rates
	Spot market exchange rates
	Yield curves
Option pricing models	Cap volatilities
	CMS spread options (strike price)
	CMS spread options (option price)
	Euro zone inflation rates
	Reference interest rates
	Saisonalities of Euro zone inflation rates
	Swaption volatilities
	Spot market exchange rates
	Exchange rates volatilities
	Yield curves

Level 3 instruments measured at fair value as of 31 December 2021

Measurement methods	Non-observable parameters	Observable parameter
DCF methods	Historical index/index correlations	+/-25% of the correlations
	Historical index/ exchange rate correlations	+/-25% of the correlations
	PD/LGD model spread	+/-2 rating levels for PD; +/-0,1 for LGD
Proxy model	Proxy models	+/- triple standard deviation

Financial instruments not measured at fair falue as of 31 December 2021

Measurement methods	Observable parameter (level 2)	Non-observable parameter (level 3)
DCF-Methoden	(Own) credit spreads and Liqui-AddOns, if necessary	Internal rating classes
	Reference interest rates	Recovery rates
	Risk-free interest rate	Estimated remaining maturities
	Observable future cash flows	Estimated future cash flows
	Benchmark interest rates	(Own) credit spreads (secondary market grid)
Bachelier cap-floor model (for floored plain vanilla floater)	Additional cap volatilities including smile	Additional cap volatilities including smile
Bachelier cap-floor model (for fixed coupons options)	Additional swaption volatilities including smile	Additional cap volatilities including smile
Prices on non-active markets	Prices of proxy trades	-

Sensitivities

The calculation of sensitivity is based on shock scenarios for correlations and volatilities pursuant to the level 3 measurement methods table. These amounts were calculated independently from each other.

Non-observable spreads in a PD (probability of default)/LGD (loss given default) model are used for the valuation of intended syndication transactions. The application of alternative spreads results in a change in fair value of €+3 million and €–7 million, respectively.

Alongside this, FVOCI securities and FVOCI receivables are measured using a proxy approach. The alternative scenario shows an only minor fair value change (+/- <€1 million).

Changes in level 3 instruments measured at fair value

in € million	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial liabilities at fair value through profit or loss
Balance at 1.1.2020	**332**	**108**	**13**
Profit or loss	-5	-45	-1
Additions (new business)	127	-	-
Disposals/repayments	-84	-5	-
Reclassifications out of Level 3	-43	-	-
Balance at 31.12.2020	**327**	**58**	**12**
Balance at 1.1.2021	**327**	**58**	**12**
Profit or loss	-43	-14	-
Additions (new business)	222	-	-
Disposals/repayments	-160	-16	-12
Balance at 31.12.2021	**346**	**28**	**-**

73. Contractual Modifications

The amortised cost of financial assets of stage 2 and 3 impairments where the contractual cash flows have not changed to a significant extent amounted to €1,202 million prior to modification (31 December 2020: €367 million). This resulted in a net modification gain/loss of €0 million in 2021 and 2020. These modifications involved forbearance measures on the part of the pbb Group, primarily in the form of deferrals.

As at 31 December 2021 and 31 December 2020, there were no financial assets which were subject to insignificant modifications during their allocation to stage 2 or 3 impairments and transferred to stage 1 impairments.

74. Netting of financial instruments

The following tables show the gross carrying amounts of recognised financial assets respectively liabilities, the gross carrying amounts of the items offset in the statement of financial position and the net amounts of the financial assets and liabilities recognised in the statement of financial position. They also show the rights of set-off that did not lead to an offsetting in the statement of financial position, the collateral received for financial assets, the collateral pledged for financial liabilities and the net amounts of financial assets and liabilities remaining following the application of the netting agreements and deduction of the collateral.

Gross carrying amounts of the items offset in the statement of financial position
On-balance sheet netting of derivatives which are settled through Eurex Clearing led to a reduction in total assets of €2.7 billion as at 31 December 2021 (31 December 2020: €3.3 billion).

Netting agreements

pbb Group routinely enters into standardised bilateral netting agreements in the derivatives business to minimise the legal risk as well as the economic and regulatory counterparty default risk. The national respectively international agreements used are the German, the French and the Spanish Master Agreement for Financial Futures and the ISDA Master Agreement issued by the International Swaps and Derivatives Association. The derivatives cannot be offset in the statement of financial position since their conditions are not identical (e. g. different terms or currency underlyings).

Collateral

In addition, pbb Group also enters into collateral agreements to hedge the net receivables and net liabilities arising following offsetting according to the netting agreements (collateral received or pledged). The collateral used is primarily cash collateral; however, securities are sometimes also used by way of title transfer.

Netting of financial instruments as of 31.12.2021

in € billion	Gross carrying amounts of recognised financial assets/liabilities	Gross carrying amounts of the items offset in the statement of financial position	Net amounts presented in the statement of financial position	Rights of set-off that did not lead to an offsetting in the statement of financial position	Received respectively pledged collateral	Remaining net amount
Financial assets	**4.2**	**2.7**	**1.5**	**0.8**	**0.6**	**0.1**
Positive fair values of derivatives	4.2	2.7	1.5	0.8	0.6	0.1
Financial liabilities	**4.6**	**2.7**	**1.9**	**0.8**	**1.1**	**-**
Negative fair values of derivatives	4.6	2.7	1.9	0.8	1.1	-

Netting of financial instruments as of 31.12.2020

in € billion	Gross carrying amounts of recognised financial assets/liabilities	Gross carrying amounts of the items offset in the statement of financial position	Net amounts presented in the statement of financial position	Rights of set-off that did not lead to an offsetting in the statement of financial position	Received respectively pledged collateral	Remaining net amount
Financial assets	**5.7**	**3.3**	**2.4**	**1.2**	**1.0**	**0.2**
Positive fair values of derivatives	5.7	3.3	2.4	1.2	1.0	0.2
Financial liabilities	**5.8**	**3.3**	**2.5**	**1.2**	**1.3**	**-**
Negative fair values of derivatives	5.8	3.3	2.5	1.2	1.3	-

OTHER NOTES

75. Contingent liabilities and other commitments

Contingent liabilities and other commitments

in € million	31.12.2021	31.12.2020
Contingent liabilities	**185**	**196**
Guarantees and warranties	185	196
Other commitments	**3,116**	**3,259**
Irrevocable loan commitments	3,116	3,259
Commitments from bank levies	**36**	**31**
Collateral pledged[1]	36	31
Total	**3,337**	**3,486**

[1] Cash collateral was provided for the irrevocable payment obligations to the German Federal Agency for Financial Market Stabilisation (Finanzmarktstabilisierungsanstalt – “FMSA”) resulting from the bank levy, and to the deposit guarantee scheme of German banks. Pbb Group is also obliged to make additional payments for the bank levy if requested.

For pbb Group irrevocable loan commitments form the largest part of other commitments. Irrevocable loan commitments comprise all commitments of a creditor which can grant a loan and advance at a later date and which can cause a credit risk. These are mainly credit commitments which are not fully drawn.

As at balance sheet date the fair value of contingent liabilities amounted to €185 million (31 December 2020: €196 million) and the fair value of irrevocable loan commitments to €3,119 million (31 December 2020: €3,316 million).

Contingent liabilities and other commitments represent the maximum default risk within the meaning of IFRS 7. pbb Group has a claim for reimbursement of expenses in case a contingent liability is utilised. There were no material contingent receivables as at 31 December 2021 and 31 December 2020.

76. Leases

Operate lease as a lessee
As a lessee, pbb Group currently exclusively recognises right-of-use assets referring to land and buildings used by pbb Group in line with IFRS 16. pbb Group entered all of its rental contracts on an arm's length basis. Some of these contracts contain renewal options potentially extending the lease term for several periods, price adjustment provisions in the form of stepped rents or index clauses, as well as early termination provisions. Regarding lease extension options, and early termination options, pbb Group took what is presently considered the most likely scenario into consideration. pbb Group measured lease liabilities at the corresponding lease payments, which were discounted with the incremental borrowing rate applicable to the respective liability. pbb Group has not made use of rent concessions that would have been granted as a result of the COVID-19 pandemic.

IFRS 16 provides options to exclude leases with a lease term of 12 months or less, as well as low-value assets (defined with a threshold value of €5,000 at pbb Group) from the scope of application. pbb Group has applied these options: expenses for this kind of leases were recognised through profit or loss on a straight-line basis over the contractual term of the underlying asset. Such expenses were disclosed as other operating expenses, or administrative expenses if the payments referred to rental expenses for business premises.

pbb Group discloses right-of-use assets in 'tangible assets' (see 'tangible assets' note), while lease liabilities are disclosed under 'other liabilities' (see 'other liabilities' note). Depreciation of right-of-use assets is recognised in the note on 'net income from write-downs and write-ups of non-financial assets' (see respective note). Immaterial interest expenses resulting from lease liabilities are disclosed in 'net interest income'.

For further information on the depreciation, additions or other adjustments made to right-of-use assets, please refer to the statement of changes in tangible assets as disclosed in the "tangible assets" note.

Contractual maturities of undiscounted cash flows from lease liabilities

in € million	31.12.2021	31.12.2020
up to 1 year	5	5
more than 1 year to 5 years	15	17
more than 5 years	6	9
Total	**26**	**31**

Lease in the income statement

in € million	2021	2020
Depreciation	5	6
Interest expense	-	-
Short term leases, less than 12 month	1	1
Total	**6**	**7**

Lease in the statement of cash flows

in € million	2021	2020
Payments for short term leases, less than 12 month (Cash flow from operating activities)	-	1
Interest portion of lease liabilities payments (Cash flow from operating activities)	-	-
Repaymens portion of lease liabilities payments (Cash flow from financing activities)	5	5
Total	**5**	**6**

Finance lease as a lessor

The finance lease receivables due from the lessee are broken down in the following tables by gross and net investment value and by the corresponding maturities.

in € million	31.12.2021	31.12.2020
Gross investment	**199**	**222**
Unearned finance income	-19	-22
Net investment/present value of minimum lease payments	**180**	**200**

Allocation by maturities

in € million	31.12.2021	31.12.2020
Gross investment	**199**	**222**
up to 1 year	16	16
more than 1 year to 2 years	16	16
more than 2 years to 3 years	16	16
more than 3 years to 4 years	17	16
more than 4 years to 5 years	17	16
more than 5 years	117	142
Present value of minimum lease payments	**180**	**200**
up to 1 year	13	13
more than 1 year to 2 years	13	13
more than 2 years to 3 years	14	13
more than 3 years to 4 years	14	14
more than 4 years to 5 years	15	14
more than 5 years	111	133

pbb Group’s finance leases refer to the financing structure for an office building.

In the financial year under review and the previous financial year, pbb Group did not enter into any sale-and-leaseback transactions or third-party sublease agreements.

77. Key regulatory capital ratios

The Management Board manages the Group’s capitalisation, based on regulatory capital ratios in accordance with the CRR and additional regulations announced by the ECB (Supervisory Review and Evaluation Process – “SREP”).

Please refer to Risk and Opportunity Report for capitalisation management as well as for key regulatory capital ratios.

78. Group auditor's fee

Group auditor's fee

in € thousand	2021	2020
Audit	1,820	2,414
Other assurance services	289	110
Tax advisory services	-	-
Other non-audit services	82	989
Total	**2,191**	**3,513**

The auditors' fee for Deloitte GmbH Wirtschaftsprüfungsgesellschaft primarily referred to the audit of the consolidated financial statements and the single-entity annual financial statements, including legal and contractually agreed extensions of the audit assignment of pbb as well as the audit of the financial statements of a subsidiary. Interim financial statements were reviewed in addition.

Other assurance services mainly concerned the preparation of a letter of comfort in connection with bond issues, the review of reporting requirements and rules of conduct pursuant to the German Securities Trading Act (WpHG), the review of the combined non-financial report, and the review of the notification of eligible loans for the TLTRO III.

Other non-audit services mainly comprised quality assurance services in connection with the credit risk models which are unrelated to the introduction or implementation of internal control and risk management procedures.

In accordance with the EU Audit Regulation (2014/56/EU) of the European Parliament and its national transposition, the German Auditors' Oversight Reform Act (Abschlussprüferaufsichtsreformgesetz – "APAReG"), pbb group has replaced the auditor in the financial year 2021. Deloitte GmbH Wirtschaftsprüfungsgesellschaft has been appointed as external auditors for the annual and the consolidated financial statements of pbb, succeeding KPMG AG Wirtschaftsprüfungsgesellschaft.

79. Related parties disclosures

According to IAS 24 (Related-Party Disclosures), a party is related to an entity if, directly or indirectly through one or more intermediaries, the party controls or is controlled by the reporting entity, has an interest in the entity that gives it significant influence over the entity or has joint control over the entity as well as associates and joint ventures. In addition, retirement benefit schemes for postemployment benefits for employees are also included under related parties.

Related Entities
At the reporting date, pbb Group had receivables to associates not accounted for using the equity method in the amount of €13 million (31 December 2020: €15 million); as in the previous year, there were no liabilities.

On 31 December 2021 liabilities to defined contribution plans amounted to €1 million (31 December 2020: €1 million).

Management in key positions

Management in key positions are persons who are directly or indirectly responsible for planning, directing and controlling the activities of pbb Group; for pbb Group, this means the members of the Management Board and the Supervisory Board. Second-level managers and the members of senior management of immaterial subsidiaries are no longer classified as related parties. The previous year's figures were adjusted accordingly.

Total remuneration of former members of the Management Board and their surviving dependants amounted to €4,709 thousand for 2021 (2020: €4,653 thousand). Remuneration for Supervisory Board members in office during the year under review totalled €740 thousand (2020: €778 thousand) during the year under review. This comprised exclusively fixed remuneration (including remuneration for memberships in Supervisory Board committees).

Vested remuneration claims of related persons[1)]

	2021						2020
in € thousand	Short-term benefits	Post-employment benefits	Other long-term benefits	Termination benefits	Share-based payments	**Total**	**Total**
Total	**4,196**	**2,911**	**326**	**-**	**824**	**8,257**	**7,458**

[1)] Reporting follows the "vesting principle", disclosing those remuneration components which were vested during the relevant 2021 reporting period.

Pension obligations to related persons

in € thousand	31.12.2021	31.12.2020
Total[1)]	**81,250**	**85,634**

[1)] Including €58,199 thousand (2020: €58,804 thousand) for pensioners and their surviving dependants.

Disclosure by pbb pursuant to section 314 no. 6 of the HGB, by groups of individuals

Remuneration paid to Management Board members of pbb

	2021[1)]	
in € thousand	Remuneration	**Total**
Management Board members who were in office during the financial year 2021	3,142	3,142
Management Board members who retired prior to the financial year 2021	-	-
Total	**3,142**	**3,142**

[1)] Remuneration paid to Management Board members who were in office during the financial year 2020 amounted to €3,179 thousand. Management Board members who retired prior the financial year 2020 did not receive any remuneration in 2020.

As of the balance sheet date, there were no receivables to related persons from loans or advances or other commitments.

Provisions for pensions

in € thousand	2021[2] Additions/ reversals	Total
Management Board members who were in office during the financial year 2021	1,289	14,645
Management Board members who retired prior to the financial year 2021[1]	-5,665	66,004
Total	**-4,376**	**80,649**

[1] From the reporting year onwards, the disclosure of the provisions for pensions is supplemented by pension expectancies and pensions/expectancies due to deferred compensation.
[2] Provisions for pensions for Management Board members who were in office during the financial year 2020 amounted to €13,356 thousand. Provisions for pensions to Management Board members who were retired prior the financial year 2020 amounted to €71,669 thousand as of 31 December 2020, this figure is supplemented by pension expectancies and pensions/expectancies due to deferred compensation.

Remuneration paid to Supervisory Board members of pbb

in € thousand	2021[2] Total fixed remuneration
Supervisory Board members who were in office during the financial year 2021	740
Supervisory Board members who retired prior to the financial year 2021	-
Total	**740**

[1] Remunerations based on employment contracts that employee representatives of the Supervisory Board receive additionally to their function in the Supervisory Board are not shown.
[2] Remuneration paid to Supervisory Board members who were in office during the financial year 2020 amounted to €778 thousand in the year 2020. Supervisory Board members who retired prior the financial year 2020 did not receive any remuneration in 2020.

Except for employee representatives to the Supervisory Board, who are remunerated by pbb under their individual employment contracts, the members of pbb's Supervisory Board did not receive any remuneration for personal services during 2021.

Statement according to article 19 MMV

According to pbb's knowledge, the members of the Management Board and the Supervisory Board as well as persons closely related to these members did not hold any shares of the Company in a reportable extent as at 31 December 2021 and as at 31 December 2020. In the years 2020 and 2019, according to pbb's knowledge, no pbb shares or derivatives relating to such shares in a reportable extend were acquired or sold by members of the Management Board and the Supervisory Board or by persons closely related to such members.

Amount of cash-settled share-based payment transactions

The total amount of outstanding virtual shares in relation to the share-based payment arrangements developed as follows:

Amount of cash-settled share-based payment transactions

Quantity (number)	2021	2020
Balance (outstanding) at 1.1.	263,845	238,109
granted during the reporting period	141,777	98,560
expired during the reporting period	-	-
exercised during the reporting period	90,849	72,824
Balance (outstanding) at 31.12.	314,773	263,845
of which: exercisable	-	-

The fair value of the virtual shares granted during the reporting period amounted to €1 million (2020: €1 million) as at the balance sheet date. The obligation from share-based payment transactions as at 31 December 2021 amounted to €6 million (2020: €4 million). It is reported in the statement of financial position under provisions.

The virtual shares exercised during the reporting period were converted at a weighted average price of the pbb share of €8.35 (2020: €14.81).

The total amount expensed for share-based payment transactions during the financial year 2021 was €2 million (2020: €2 million).

An amount of €0 million (2020: €0 million) was expensed for former members of the Management Board.

80. Employees

Average number of employees

	2021	2020
Employees (excluding apprentices)	823	808
Thereof: senior staff in Germany	19	18
Total	**823**	**808**

81. Members of the Supervisory Board and of the Management Board

Supervisory Board of pbb in financial year 2021

Name Place of residence Function in Supervisory Board Initial appointment	Principal occupation Functions in the Committees of the Supervisory Board	Supervisory Board memberships and other directorships in 2021
Dr. Günther Bräunig Frankfurt/Main, Germany Chairman 14.8.2009	**CEO of KfW (until 31.10.2021)** Chairman of the Executive and Nomination Committee, of the Remuneration Committee and of the Audit and Digitalisation Committee (from 1.11.2021); Member of the Audit and Digitalisation Committee (until 31.10.2021) and of the Risk Management and Liquidity Strategy Committee (from 1.11.2021)	**Deutsche Post AG, Bonn, Germany** – Member of the Supervisory Board **Deutsche Telekom AG, Bonn, Germany** – Member of the Supervisory Board
Dagmar Kollmann Vienna, Austria Deputy Chairman 14.8.2009 (Member until 31.10.2021)	**Entrepreneur** Chairman of the Audit and Digitalisation Committee, Member of the Executive and Nomination Committee and of the Remuneration Committee and of the Risk Management and Liquidity Strategy Committee (each function until 31.10.2021)	**Deutsche Telekom AG, Bonn, Germany** – Member of the Supervisory Board **KfW IPEX-Bank GmbH, Frankfurt/Main, Germany** – Member of the Supervisory Board (until 25.3.2021) **Unibail-Rodamco SE, Paris, France** – Member of the Supervisory Board **Coca-Cola European Partners plc, London, UK** – Member of the Supervisory Board **Paysafe Limited, London** - Member of the Supervisory Board (from 25.3.2021)
Hanns-Peter Storr Frankfurt/Main, Germany Member; Deputy Chairman (from 10.11.2021) 12.5.2021	**Banker** Chairman of the Risk Management and Liquidity Strategy Committee Member of the Audit and Digitalisation Committee (each function from 12.5.2021)	**BHW Bausparkasse AG, Hameln, Germany** – Member of the Supervisory Board
Dr. Jutta Dönges Frankfurt/ Main, Germany 21.6.2018 (Member until 24.3.2021)	**Executive Board Member of Bundesrepublik Deutschland – Finanzagentur GmbH** Member of the Audit and Digitalisation Committee and of the Risk Management and Liquidity Strategy Committee (each function until 24.3.2021)	**FMS Wertmanagement AöR, Munich, Germany** – Deputy Chairman of the Supervisory Board **Commerzbank AG, Frankfurt/Main, Germany** – Member of the Supervisory Board **TUI AG, Hannover, Germany** – Member of the Supervisory Board (from 25.3.2021)
Dr. Thomas Duhnkrack Kronberg/Taunus, Germany Member 21.7.2015	**Entrepreneur** Member of the Audit and Digitalisation Committee and of the Executive and Nomination Committee (from 10.11.2021)	**Hauck & Aufhäuser Privatbankiers AG (from 1.1.2022 Hauck Aufhäuser Lampe Privatbank AG), Frankfurt/Main, Germany** – Member of the Supervisory Board
Dr. Christian Gebauer-Rochholz Hochheim, Germany Employee Representative 21.11.2012 (Member until 12.5.2021)	**Bank employee**	–
Susanne Klöß-Braekler Munich, Germany Member 12.5.2021	**Entrepreneur** Member of the Executive and Nomination Committeeand of the Remuneration Committee	**ING-DiBa AG, Frankfurt/Main, Germany** – Chairman of the Supervisory Board **Oddo BHF AG, Frankfurt/Main, Germany** – Member of the Supervisory Board **Cembra Money Bank AG, Zürich, Switzerland** – Member of the Supervisory Board
Georg Kordick Poing, Germany Employee Representative 22.2.1990	**Bank employee**	–
Olaf Neumann Munich, Germany Employee Representative 12.5.2021	**Bank employee**	–
Joachim Plesser Ratingen, Germany Member 26.8.2014 (Member until 12.5.2021)	**Consultant** Chairman of the Risk Management and Liquidity Strategy Committee, Member of the Executive and Nomination Committee and of the Remuneration Committee (each function until 12.5.2021)	**DIC Beteiligungs AG, Frankfurt/Main, Germany** – Member of the Supervisory Board **Pandion AG, Cologne, Germany** – Chairman of the Supervisory Board
Oliver Puhl Frankfurt/Main, Germany Member 13.5.2016	**Entrepreneur** Member of the Risk Management and Liquidity Strategy Committee	–
Heike Theißing Munich, Germany Employee Representative 7.7.2011	**Bank employee** Member of the Remuneration Committee	–

In its extraordinary meeting at the end of January 2022, the Supervisory Board resolved to file an application for court appointment of Gertraud Dirscherl to the Supervisory Board. The court appointment has a term until the end of the 2022 Annual General Meeting. The Supervisory Board will propose to the Annual General Meeting to elect Ms Dirscherl as member of the Supervisory Board.

Management Board of pbb in financial year 2021

Name and place of residence	**Function in the Management Board**	**Supervisory Board memberships**
Andreas Arndt Munich	CEO/CFO	-
Thomas Köntgen Frankfurt/Main	Deputy CEO Real Estate Finance Public Investment Finance	-
Andreas Schenk Dreieich	CRO	-
Marcus Schulte Grünwald	Treasury	-

82. Holdings of pbb

Holdings of pbb as of 31 December 31.12.2021

Additional statement according to HGB Name Place of business and country	Purpose of business	Interest in % Total (Sec 16 (4) Aktiengesetz)	Interest in % Of which held indirectly	Differing voting rights in %	Currency	Equity in thousands	Net income/ loss in thousands
Consolidated companies							
CAPVERIANT GmbH Munich, Germany	Marketplace of municipal finance	71.43	-	-	EUR	5,965	-4,673
Immo Immobilien Management Beteiligungsgesellschaft mbH i.L. Munich, Germany	Real estate company	100.00	-	-	EUR	10	-
IMMO Invest Real Estate GmbH[1)] Munich, Germany	Salvage acquisition	100.00	-	-	EUR	948	-
Associated companies not measured at equity due to minor significance							
SOMA Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Darmstadt KG [2)] Dusseldorf, Germany	Model of bank holding	33.33	-	25.00%	EUR	-232	2,214

1) Profit transfer by shareholders on the basis of profit and loss transfer agreement.
2) Financial figures from the financial year 2020.

83. Country-by-Country Reporting

The requirements of Article 89 of EU Directive 2013/36/EU (Capital Requirements Directive CRD IV) concerning to so-called Country-by-Country Reporting were endorsed in German law by Section 26a KWG (German Banking Act). In financial years 2021 and 2020 no entity respectively no branch of pbb received public subsidies. On 31 December 2021, the ratio of net profit and total balance sheet of pbb Group was 0.4% (31 December 2020: 0.2%). The further figures required by Section 26a KWG are disclosed in the following table:

Country-by-Country Reporting (Additional statement according to Section 26a KWG) as of 31 December 2021

Type of business Name and place of business	Country	Number of employees[1]	Turnover[2) 3)] (in € million)	Income/loss before tax[3)] (in € million)	Income taxes[3)] (in € million)
Deposit taking credit institution					
Deutsche Pfandbriefbank AG, Munich	Germany	659	551	234	-13
Branch of a deposit taking credit institution					
Deutsche Pfandbriefbank AG, London branch	United Kingdom	44	13	1	-
Deutsche Pfandbriefbank AG, Madrid branch	Spain	9	2	-	-
Deutsche Pfandbriefbank AG, Paris branch	France	32	19	12	2
Deutsche Pfandbriefbank AG, Stockholm branch	Sweden	10	3	-	-
Representative office of a deposit taking credit institution					
Deutsche Pfandbriefbank AG, representative office New York	USA	9	4	-	-3
Provider of ancillary services					
CAPVERIANT GmbH, Munich	Germany	15	-2	-5	-
CAPVERIANT GmbH, Paris branch	France	6	1	-	-
Immo Immobilien Management Beteiligungsgesellschaft mbH i.L., Munich	Germany	-	-	-	-
IMMO Invest Real Estate GmbH, Munich	Germany	-	-	-	-

1) Full-time equivalents not including apprentices, interns/working students and short-term employees with fixed terms < 1 year.
2) Operating income as turnover equivalent.
3) Figures before consolidation.

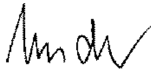
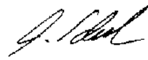
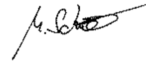
84. Report on Post-balance Sheet Date Events

On 24 February 2022, Russia attacked its sovereign neighbouring country Ukraine, using military force. At the time of preparing the financial statements, the military conflict was still ongoing. In re-sponse, many countries have imposed economic and other sanctions against Russia. The further development of the war and its economic consequences cannot be reliably estimated.

Pbb group monitors developments closely and continuously in order to be able to take the neces-sary measures. The Bank has no direct exposure to borrowers domiciled in Russia, Belarus or Ukraine, nor has it financed any properties in these countries. Moreover, pbb group has not extended any financings to persons included on the European Union's current sanctions list. Three existing PIF financings related to Russia amount to approximately €60 million and are almost fully guaranteed by Euler-Hermes, the Federal Republic of Germany's export credit agency. The exposure not covered by these guaran-tees is roughly €3 million.

Munich, 8 March 2022

Deutsche Pfandbriefbank AG
The Management Board

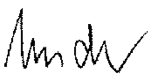
Andreas Arndt | Thomas Köntgen | Andreas Schenk | Marcus Schulte

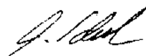
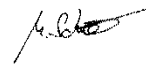
Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the Consolidated Financial Statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Combined Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Munich, 8 March 2022

Deutsche Pfandbriefbank AG
The Management Board



Andreas Arndt Thomas Köntgen Andreas Schenk Marcus Schulte

Independent Auditor's Report

To Deutsche Pfandbriefbank AG, Munich/Germany

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE COMBINED MANAGE-MENT REPORT

Audit Opinions
We have audited the consolidated financial statements of Deutsche Pfandbriefbank AG, Munich/Germany, and its subsidiaries (the Group) which comprise the consolidated statement of financial position as at 31 December 2021, the consolidated statement of profit and loss and other comprehensive income, the consolidated state-ment of changes in equity and the consolidated statement of cash flows for the financial year from 1 January to 31 December 2021, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report on the parent and the group of Deutsche Pfandbriefbank AG, Munich/Germany, for the financial year from 1 January to 31 December 2021. In accordance with the German legal requirements, we have not audited the content of the combined corporate governance statement, including the further reporting on corporate governance included therein, and the separate combined non-financial statement, each of which is made reference to in the combined man-agement report.

In our opinion, on the basis of the knowledge obtained in the audit,
- the accompanying consolidated financial statements comply, in all material respects, with the IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2021 and of its financial performance for the financial year from 1 January to 31 December 2021, and
- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated fi-nancial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the contents of the combined corporate governance statement stated above, including the further reporting on corporate governance included therein, and of the separate combined non-financial statement stated above.

Pursuant to Section 322 (3) sentence 1 German Commercial Code (HGB), we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the com-bined management report.

Basis for the Audit Opinions
We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation (No. 537/2014; referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and profes-sional law, and we have fulfilled our other German professional responsibilities in accordance with these re-quirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit

services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements
Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2021. These mat-ters were addressed in the context of our audit of the consolidated financial statements as a whole and in form-ing our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In the following we present the determination of risk provisioning in the lending business, which we have de-termined to be a key audit matter in the course of our audit.

Our presentation of this key audit matter has been structured as follows:

a) description (including reference to corresponding information in the consolidated financial statements)
b) auditor's response

Determination of risk provisioning in the lending business

a) As at 31 December 2021, a total of bEUR 48.1 in "Financial assets at amortised cost after credit loss al-lowances" are recognised in the consolidated financial statements of Deutsche Pfandbriefbank AG, which makes up 82.3% of total assets. The existing risk provisioning of mEUR 342 has already been de-ducted from these assets. Risk provisioning includes both individually determined stage 3 specific al-lowances of mEUR 172 and stage 1 and 2 credit loss allowances determined using a model-based ap-proach of mEUR 170 that include a management overlay of mEUR 54 on account of the uncertainties regarding the further development of the COVID-19 pandemic. Additional contingent liabilities and other commitments amount to bEUR 3.3, for which provisions of mEUR 16 have been made in the lend-ing business, which fully relate to stage 1 and 2 credit loss allowances determined using a model-based approach.

   The Bank assesses the recoverability of loans and advances in the lending business on a regular basis and whenever there are objective indications that the assets may be impaired. The expected stage 3 credit loss is determined based on individual cash flows in several probability-weighted scenarios. The amount of risk provision equals the difference between the carrying amount of the asset and the pre-sent value of the expected future cash flows. The latter is calculated based on the initial effective interest rate. The expected future cash flows take into account the marketability of collaterals such as land charges/mortgages. Where applicable, corresponding provisions are made for off-balance sheet transactions subject to either an imminent risk of utilisation by doubtful borrowers (guarantees, war-ranties) or to expected impairments due to payment obligations (irrevocable loan commitments).

Upon initial recognition of the loans and advances, the impairments in the lending business are based on expected credit losses for twelve months (stage 1). The 12-month expected credit loss is that part of the lifetime expected credit losses that is equal to the expected credit losses from defaults that may occur statistically within twelve months after the reporting date. In case of a significant increase in the financial asset's credit risk within the context of subsequent measurement (stage 2), the impairment has to reflect the expected default events over the life of the transaction. For determining stage 1 and 2 credit losses, the Bank generally uses a model-based procedure based on the regulatory risk parame-ters (probability of default, loss given default) and on the rules agreed in the loan agreements underly-ing the loans and advances, such as contractually agreed cash flows. The regulatory risk parameters are transformed. Stage 1 and 2 credit losses are measured using different scenarios weighted by their probability of occurrence.

As at the balance sheet date 31 December 2021, a management overlay of mEUR 54 was added to the stage 1 and 2 credit losses that was determined by taking into account the time delay expected by the executive directors of the Bank for defaults and bankruptcies to occur since the trough of the pandem-ic-related recession in the forecast parameters, such as for example the change in unemployment rate for certain credit portfolios affected by the pandemic. Moreover, certain credit portfolios were identi-fied based on characteristics of the financing objects that are subject to higher credit risks.

Given the fact that the lending business is one of the Bank's core business activities and both individual and model-based measurement of loans and advances as well as the determination of the settlement amount of provisions as is necessary according to the impairment rules under IFRS 9 requires the ex-ecutive directors to make judgements and estimates, for example with respect to the design of the measurement models, estimates such as the expected future payments received, the measurement of collateral or other expected defaults, there is a higher risk that the amount of the credit loss allowanc-es, if necessary, may not be appropriate. This matter was of particular relevance as part of our audit since the recoverability of loans and advances in the lending business and, in correspondence with that, the appropriate determination of allowances is prone to uncertainties.

The disclosures on the determination of allowances in the lending business can be found in the notes to the consolidated financial statements in note 7 "Financial Instruments", subsection "Classification and Measurement of Financial Instruments", as well as in note 29 "Judgements and Estimations", subsection "Allowances", as well as in note 50 "Financial Assets at Amortised Cost after Credit Loss Allowances (In-cluding Claims from Finance Lease Agreements)", subsection "Development in risk provisioning".

b) Based on our risk assessment, our risk-based audit approach involved an examination of the relevant system of internal control and the performance of substantive procedures. The test of design and im-plementation and of operating effectiveness comprised the controls with respect to the processes for identifying indications for impairment (risk early recognition process), customer ratings as well as cash flow-based determination of impairment (stage 3 credit losses). Moreover, we conducted a test of de-sign and implementation and of operating effectiveness of the controls with respect to the determina-tion of stage 1 and 2 credit losses.

In addition, we conducted an evaluation of the appropriate identification of indications for impairment based on individual cases selected according to risk aspects, as well as of the measurement of loans and advances for which the Bank considered it necessary to carry out an impairment test, including the ac-ceptability of the estimated values. Within the scope of this evaluation, we particularly reviewed those methods, assumptions and data used by the client for determining the estimated values. With respect to the measurement of loans and advances, we reviewed the underlying assumptions, especially the amount and timing as well as the discounting of expected future payments received in the different scenarios as well as their weighting. In this context, we also evaluated the amounts of collateral taken into account in the scenarios.

Furthermore, we traced the stage 1 and 2 credit losses determined based on a representative sample and evaluated the methodology for deriving the management overlay and the appropriateness of the underlying assumptions, especially with respect to the selected classes of financing objects, the period of time and reasons for delays of the defaults on the estimated values. In this context, our evaluation al-so took into account industry reports and research results from real estate market observation. Likewise, we reconstructed the calculation of the management overlay.

For the purpose of assessing the determination of stage 1 and 2 credit losses and of the management overlay and assessing the measurement of collateral, we called in our internal specialists.

In addition, we audited the accuracy and completeness of the disclosures made in the notes to the con-solidated financial statements.

Other Information

The executive directors and/or the supervisory board are responsible for the other information. The other information comprises

- the report of the supervisory board,
- The combined corporate governance statement pursuant to Section 289f and Section 315d HGB including the further reporting on corporate governance included therein, to which reference is made in the com-bined management report,
- the separate combined non-financial statement pursuant to Sections 315b and 315c HGB in conjunction with Sections 289b to 289e HGB, to which reference is made in the combined management report and which is published together with the combined management report,
- the executive directors' confirmation regarding the consolidated financial statements and the combined management report pursuant to Section 297 (2) sentence 4 and Section 315 (1) sentence 5 HGB, and
- all other parts of the annual report,
- but not the consolidated financial statements, not the audited content of the combined management report and not our auditor's report thereon

The supervisory board is responsible for the report of the supervisory board. The executive directors and the supervisory board are responsible for the statement according to Section 161 German Stock Corporation Act (AktG) concerning the German Corporate Governance Code, which is part of the combined corporate governance statement. Otherwise the executive directors are responsible for the other information.

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assur-ance conclusion thereon.

In connection with our audit, our responsibility is to read the other information identified above and, in doing so, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the audited content of the com-bined management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Finan-cial Statements and the Combined Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that com-ply, in all material respects, with IFRS as adopted by the EU and the additional requirements of German commer-cial law pursuant to Section 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial perfor-mance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, mat-ters related to going concern. In addition, they are responsible for financial reporting based on the going con-cern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the combined management report that as a whole provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately pre-sents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined man-agement report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Stand-ards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also

- identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures re-sponsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or condi-tions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclo-sures in the consolidated financial statements and in the combined management report or, if such disclo-sures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evi-dence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabili-ties, financial position and financial performance of the Group in compliance with IFRS as adopted by the EU and with the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- perform audit procedures on the prospective information presented by the executive directors in the com-bined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as

a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We provide those charged with governance with a statement that we have complied with the relevant inde-pendence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the current period and are therefore the key audit matters. We describe these matters in the auditor's report unless law or regulation precludes pub-lic disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the Audit of the Electronic Reproductions of the Consolidated Financial Statements and of the Combined Management Report Prepared for Publication Pursuant to Section 317 (3a) HGB

Audit Opinion

We have performed an audit in accordance with Section 317 (3a) HGB to obtain reasonable assurance whether the electronic reproductions of the consolidated financial statements and of the combined management report (hereinafter referred to as "ESEF documents") prepared for publication, contained in the provided file, which has the SHA-256 value 5EA491BE9318075691F51C5AD87F85766AE996AE9430CD2230A6B4FC38519313, meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB ("ESEF format"). In accordance with the German legal requirements, this audit only covers the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format, and therefore covers neither the information contained in these electronic reproductions nor any other information contained in the file identified above.

In our opinion, the electronic reproductions of the consolidated financial statements and of the combined man-agement report prepared for publication contained in the provided file identified above meet, in all material re-spects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB. Beyond this audit opinion and our audit opinions on the accompanying consolidated financial statements and on the accompany-ing combined management report for the financial year from 1 January to 31 December 2021 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report" above, we do not express any assurance opinion on the information contained within these electronic repro-ductions or on any other information contained in the file identified above.

Basis for the Audit Opinion

We conducted our audit of the electronic reproductions of the consolidated financial statements and of the combined management report contained in the provided file identified above in accordance with Section 317 (3a) HGB and on the basis of the IDW Auditing Standard: Audit of the Electronic Reproductions of Financial Statements and Management Reports Prepared for Publication Purposes Pursuant to Section 317 (3a) HGB (IDW AuS 410 (10.2021)). Our responsibilities in this context are further described in the "Group Auditor's Re-sponsibilities for the Audit of the ESEF Documents" section. Our audit firm has applied the IDW Standard on Quality Management: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the Executive Directors and the Supervisory Board for the ESEF Documents

The executive directors of the parent are responsible for the preparation of the ESEF documents based on the electronic files of the consolidated financial statements and of the combined management report according to Section 328 (1) sentence 4 no. 1 HGB and for the tagging of the consolidated financial statements according to Section 328 (1) sentence 4 no. 2 HGB.

In addition, the executive directors of the parent are responsible for such internal controls that they have con-sidered necessary to enable the preparation of ESEF documents that are free from material intentional or unin-tentional non-compliance with the requirements for the electronic reporting format pursuant to Section 328 (1) HGB.

The supervisory board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group Auditor's Responsibilities for the Audit of the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material in-tentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise profes-sional judgement and maintain professional scepticism throughout the audit. We also

- identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform audit procedures responsive to those risks, and obtain audit evi-dence that is sufficient and appropriate to provide a basis for our audit opinion.
- obtain an understanding of internal control relevant to the audit on the ESEF documents in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an assur-ance opinion on the effectiveness of these controls.
- evaluate the technical validity of the ESEF documents, i.e. whether the provided file containing the ESEF doc-uments meets the requirements of the Delegated Regulation (EU) 2019/815, in the version in force at the balance sheet date, on the technical specification for this electronic file.
- evaluate whether the ESEF documents enable a XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited combined management report.
- evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the balance sheet date, enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further information pursuant to Article 10 of the EU Audit Regulation
We were elected as group auditor by the annual general meeting on 12 May 2021. We were engaged by the supervisory board on 27 August 2021. We have been the group auditor of Deutsche Pfandbriefbank AG, Munich/Germany, since the financial year 2021.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

OTHER MATTER – USE OF THE AUDITOR'S REPORT

Our auditor's report must always be read together with the audited consolidated financial statements and the audited combined management report as well as with the audited ESEF documents. The consolidated financial statements and the combined management report converted into the ESEF format – including the versions to be published in the Federal Gazette – are merely electronic reproductions of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the ESEF report and our audit opinion contained therein are to be used solely together with the audited ESEF documents made available in electronic form.

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Martin Kopatschek

Munich/Germany, 9 March 2022

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed: Prof. Dr. Carl-Friedrich Leuschner
Wirtschaftsprüfer
(German Public Auditor)

Signed: Martin Kopatschek
Wirtschaftsprüfer
(German Public Auditor)

Future-oriented Statements

This report contains future-oriented statements in the form of intentions, assumptions, expectations or forecasts. These statements are based on the plans, estimates and predictions currently available to the management board of pbb. Future-oriented statements therefore only apply on the day on which they are made. We do not undertake any obligation to update such statements in light of new information or future events. By their nature, future-oriented statements contain risks and factors of uncertainty. A number of important factors can contribute to actual results deviating considerably from future-oriented statements. Such factors include the condition of the financial markets in Germany, Europe and the USA, the possible default of borrowers or counterparties of trading companies, the reliability of our principles, procedures and methods for risk management as well as other risks associated with our business activity.

Imprint

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The German version of this Annual Report is the authoritative version and only the German version of the Combined Management Report and the Consolidated Financial Statements were audited by the auditors.