MünchenerHyp

TRADITION ON THE MOVE

DISCLOSURE REPORT 2021

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Disclosure pursuant to CRR / CRD IV

1 BASIS FOR SUPERVISORY DISCLOSURE

This disclosure report is based on requirements pursuant to Regulation (EU) No. 575 / 2013 on prudential requirements for credit institutions and investment firms (Capital Requirements Regulation – CRR) and Directive 2013 / 36 / EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms (Capital Requirements Directive IV – CRD IV), as well as the German Banking Act (KWG) and the German Solvency Regulation (SolvV). Together these regulations represent the regulatory framework, which in Germany applies to subjects including capital, leverage, liquidity, as well as Pillar III disclosures. This report refers to the business year ending on 31 December 2021. Thus, rules and regulations that were valid to this date apply, unless otherwise indicated.

This disclosure report was prepared in accordance with Commission Implementing Regulation (EU) 2021/637 of 15 March 2021 laying down implementing technical standards with regard to public disclosures by institutions of the information referred to in Titles II and III of Part Eight of Regulation (EU) No 575/2013, which has been in effect since 28 June 2021.

Irrespective of individual regulatory initiatives, MünchenerHyp works continuously to further develop its risk management infrastructure.

In keeping with the further development of the risk management infrastructure, the structure of the disclosure report has been appropriately adjusted to reflect the risk categories that have been identified as relevant within the framework ofthe risk inventory and the preparation of MünchenerHyp's risk strategy. Qualitative and quantitative information has been presented for each type of risk as required pursuant to the regulatory disclosure guidelines.

This report fully complies with all of the regulatory disclosure requirements that are relevant for MünchenerHyp. This report is published every year on MünchenerHyp's website shortly after the publication of the annual financial statements.

The amounts are disclosed in million euros, rounding differences can occur.

The following overview lists the disclosure requirements pursuant to CRR and the corresponding chapters in MünchenerHyp's disclosure report.

TABLE 1: DISCLOSURE TOPICS PRESENTED IN THIS REPORT AS REQUIRED BY TITLE 8 CRR

Disclosure requirements pursuant to Title 8 CRR	Corresponding chapter in this disclosure report
Article 435: Risk management objectives and policies	Risk management and Management Bodies Annex
Article 436: Scope of application	Fundamentals of regulatory disclosure
Article 437: Own funds	Own funds
Article 437a: Own funds and eligible liabilities	Own funds
Article 438: Capital requirements	Own funds
Article 439: Counterparty credit risk	Counterparty risk and derivative counterparty risk exposure and netting positions
Article 440: Capital buffers	Countercyclical capital buffer
Article 441: Indicators of global systemic importance	N/A
Article 442: Credit risk adjustments	Counterparty risk
Article 443: Unencumbered assets	Encumbered assets
Article 444: Use of External Credit Assessment Institutions (ECAIs)	Counterparty risk
Article 445: Exposure to market risk	Market price risk
Article 446: Operational risk	Operational risk
Article 447: Exposures in equities not included in the trading book	Investment risk
Article 448: Exposure to interest rate risk on positions not included in the trading book	Counterparty risk
Article 449: Exposure to securitisation positions	N/A
Article 449a: Environmental, social and governance risks (ESG risks)	N/A
Article 450: Remuneration policy	Remuneration policy
Article 451: Leverage	Exposure to leverage risk
Article 451a: Liquidity requirements	Liquidity risk
Article 452: Use of the IRB Approach to credit risk	Counterparty risk
Article 453: Use of credit risk mitigation techniques	Counterparty risk
Article 454: Use of the Advanced Measurement Approaches to operational risk	N/A
Article 455: Use of internal risk models	N/A

2 MÜNCHENER HYPOTHEKEN-BANK EG STRUCTURE

In both financial and regulatory terms, MünchenerHyp is an individual institution and not a financial conglomerate. The four fully owned subsidiary companies – M-Wert GmbH, Munich, Immobilienservice GmbH der Münchener Hypothekenbank eG (M-Service), Munich, M-4Tec GmbH, Munich, and Nußbaumstraße GmbH Et Co. KG, Munich – do not represent significant subsidiaries that would trigger a mandatory consolidation requirement. Moreover, MünchenerHyp does not operate any foreign subsidiaries.

3 RISK MANAGEMENT

3.1 Appropriateness Risk Management Procedure

Pursuant to Article 435 (1) CRR, the Board of Management hereby states that the submitted risk management system as shown below is appropriate for the Bank's profile and its strategy:

The ability to monitor and keep risks under control at all times is essential for the successful steering of business development at MünchenerHyp. For this reason, risk management plays a very important role in the overall management of the Bank.

The business and risk strategies define the parameters of the Bank's business activities. MünchenerHyp's entire Board of Management is responsible for both the business strategy and the risk strategy, which are regularly reviewed regarding the attainment of goals and the effectiveness and are updated as necessary and then submitted to the Supervisory Board at least once a year. As part of its supervisory duties, the Supervisory Board is informed at least once per quarter concerning the Bank's risk profile and how well it has performed towards achieving its objectives. This takes place using reports such as the ICAAP and ILAAP, lending risks, as well as the risk report prepared in accordance with the "Minimum Requirements for Risk Management" (MaRisk), which contains a complete summary of all the risks.

The basis of risk management consists of, on one hand, the analysis and presentation of existing risks, and, on the other, comparing these risks with the risk cover potential (ability to bear risk). The analysis and presentation of existing risks primarily distinguishes between counterparty, market price, liquidity, credit spread, migration and investment risks, as well as operational and model risks. Additional risks such as ESG risks, placement risk, reputational or behavioural risk, business risk, etc. are viewed as parts of the above-mentioned risks and are taken into consideration at the appropriate place in the individual calculations, or are taken into consideration as other risks. Appropriate monitoring processes are in place involving internal process-dependent and independent supervision. Our Internal Audit department is responsible for the process-independent monitoring function within the Bank.

The professional concepts and models used to calculate the ability to bear risks are continuously further developed in accordance with regulatory requirements. Münchener Hypothekenbank calculates its ability to bear risks using the normative approach as well as the economic approach.

The paramount objective of monitoring the risk-bearing ability is to secure the Bank's independence by ensuring that its income, cost and risk structures are organised in a manner that allows them to be controlled without external assistance. MünchenerHyp employs an extensive limit system as an additional risk control instrument to monitor its ability to bear risks. The limit system assists in setting and regularly reviewing limits, for example, for debtor categories or countries.

Resolutions passed by the Basel Committee on Banking Supervision, or by the European Union regarding regulatory requirements, and their subsequent translation into German law, are continually observed and analysed by the Compliance Department, which also initiates measures needed to implement these requirements. Furthermore, these measures lead to the review and further development of the Bank's risk and business strategies. Based on this procedure, relevant processes and systems are then adjusted as necessary.

Methods to measure risk included in the framework of obtaining IRBA certification, along with risk management procedures that are being continuously further developed, are embedded in MünchenerHyp's risk management system. The results derived from the risk models are suitable for managing MünchenerHyp. Despite careful development/further development and regular assessments of models, situations may, however, still arise whereby the actual losses or liquidity needs are higher than foreseen by the risk models. Various stress scenarios are used within the framework of risk mitigation in order to take this extraordinary, but plausible, situation into proper account.

3.2 Risk Statement

Segment 3.2 of the report presents the concise risk statement of MünchenerHyp's Board of Management pursuant to Article 435 (1) f CRR.

3.2.1 Description of risk management objectives

The risk strategy is an integral part of the Bank's business strategy. Based on the institution's business objectives, risk strategy is the source of risk-related measures to manage risk that are necessary for the Bank to achieve these objectives. The business and risk strategies are set by the Board of Management. Details are coordinated with the affected department heads. This information is available to all of the Bank's employees. This process takes place at least once a year and on an ad hoc basis. Monitoring of the defined standards (volumes, margins, limits, etc.) takes place in the various departments and is reported to the Board of Management per quarter.

Within its business strategy, MünchenerHyp defines its business areas as residential and commercial property finance, which are further divided into the following segments: Retail Germany, Retail Switzerland, Retail Austria, Commercial Domestic and Commercial International. In addition, there is also the Bank's capital market business with the public sector and banks. Strategy and operational objectives are set for each of these segments, which should be achieved within the framework of the mid-term business plan.

Based on this, the risk strategy states how MünchenerHyp will, or plans to, deal with the risks associated with these business activities. In principle, systems, processes, controls and guidelines are integral elements of risk management. Therefore, individual risk management processes, as well as modelling and measuring approaches to quantify risks plus liquidity and capital requirements, are implemented by MünchenerHyp. The key capital and liquidity ratios that are significant for MünchenerHyp are subject to tight supervision with corresponding stress tests, a limit system with early warning indicators and escalation processes. Expert evaluations are employed to gauge additional risks, such as reputational or model risk, which are then taken into general consideration when calculating the Bank's ability to bear risks. Processes and procedures used in risk management are subject to regular institution-wide examinations by our Internal Audit department.

Within the framework of ensuring adequate capital, institutions must always identify and evaluate their risks, maintain sufficient capital to cover their risks, and employ processes to manage risk in order to permanently ensure that they are adequately capitalised (the Internal Capital Adequacy Assessment Process – ICAAP). The available internal capital must exceed measured risks at all times. The normative approach reveals if the ability to bear risks is still given after all risks have occurred (excluding diversification effects between the risk categories), i.e. capital requirements according to Pillar I and SREP surcharges are still met and the leverage ratio is still maintained. Only regulatory equity capital may be used as risk-covering equity. Using the economic approach, the present value of the calculated risk cover potential is compared to VaR. In addition, stress tests are reviewed in both scenarios.

The risk weighted assets (RWA) or the Expected Loss are additional factors used to manage risks. For example, caps are set depending on the rating system, individual rating, or loan-to-value ratios for the maximum permitted lending exposure. In addition, MünchenerHyp uses various parameters to limit risks, such as upper limits for loan-to-value (LTV) or lower limits for the debt service coverage ratio (DSCR). Management of capitalisation is integrated in MünchenerHyp's risk management processes and is continuously monitored by the Board of Management. The calculation of the ICAAP figures allows countermeasures to be taken in time to avoid unwanted developments.

In principle, the Bank advocates exposing itself to only minor risks. This policy is visible, for example, in the average loan-to-value figure that is below 70% of 66% of the mortgage lending value, or in the fact that the Bank does not enter into any significant trading book deals.

The formulation of the Bank's business strategy, which is made in agreement with the Bank's Treasury Department, already examines if the necessary liquidity can be obtained at the planned margins within the framework of the ILAAP. Funding plans are aligned with sales objectives in an iterative process headed by Risk Controlling. A limit system with early warning indicators is also employed to continually monitor and control liquidity during the business year. An emergency liquidity plan also exists and can be activated in stress situations.

MünchenerHyp submits an updated restructuring plan every year to the Single Resolution Board (SRB). Furthermore, the Bank has provided all of the necessary data to the SRB in order to prepare the appropriate resolution measures needed in the theoretical case of insolvency.

3.2.2 Description of risk tolerance and risk appetite

The impact on portfolios and RWAs is determined within the framework of a planning session that takes place (at least) once a year using an iterative process involving sales plans (depending on goals set for the average target margins), as well as the targeted interest income figure. Guidelines regarding risk tolerance and risk appetite in the credit business are derived by comparing the planned RWA with risk-bearing capacity and capital planning and then applying this to the planned volumes of new business and prolongations in the individual business segments. Required refinancing needs are also guaranteed as the required liquidity is determined parallel to the Bank's funding plans.

The reality, however, is that MünchenerHyp in principle only assumes minor risks in comparison to the rest of the banking sector. One example of this is that the lowest rating category accepted by the Bank as new business, and which the Bank only deviates from in exceptional cases, is 2c (see Table 13). This means that the main emphasis of the Bank's existing business is in the 1a to 1c rating categories.

Within the framework of the Bank's business strategy, plans call for new business to grow in the areas of Retail Germany, Retail Austria, Commercial Domestic and Commercial International, with commercial business growing somewhat more strongly than retail.

MünchenerHyp uses derivative strategies to hedge its exposure to the risk of changing interest rates (interest risk). As a result, an increase in the volume of the lending portfolio does not automatically lead to an increased risk of changing interest rates.

Changes in the mentioned risk categories are accounted for when limits are set for the individual risk categories within the framework of calculating the Bank's ability to bear risk.

3.2.3 Description of risk management instruments

Within the framework of calculating the Bank's ability to bear risk, limits are set for each individual category of risk in order to restrict risks. In addition, country and individual limits are in place in the capital market and when granting loans respectively.

3.2.4 Description of the development of key figures and risk management instruments (incl. risk inventory)

In regards to the quantification of risks shown in the economic outlook, which is similar to what was the insolvency scenario, the disclosure of risks with a 99.9% level of confidence is shown in Table 2. As the risk coverage potential of the economic outlook has risen more strongly than the risks, the Bank's ability to bear risk remains unrestricted. The increase in risk coverage potential results primarily from higher present-value reserves, but also from an increase in Common Equity Tier 1 capital positions. Although spread risks formally represent the highest risks at present, this is mainly due to swings in purely indicative prices for bonds issued by the German federal states on a few days at the beginning of the Covid crisis.

With a credit spread VaR of EUR 211.0 million, the EUR 2.3 billion exposure to the German federal states alone results in a theoretical and, in our opinion, far too high VaR of EUR 175.5 million; this in turn causes the high total amount.

However, since these price swings are included in all public time series and are scaled up to 1 year in the VaR method (extremely doubtful in this case), the value must be reported accordingly. Of course, MünchenerHyp does not expect any defaults on this top-rated portfolio, however.

TABLE 2: ECONOMIC OUTLOOK

	31.12.2020	31.12.2021
Market risk value-at-risk	130.6	184.8
Credit risks	149.6	179.3
Operational risks	50.7	51.0
Spread risks	200.9	211.1
Migration risks	89.7	95.9
Investment risks	21.5	21.6
Property risks	1.7	0.4
Refinancing risks	5.7	3.2
Model risks and other risks	34.7	39.9
Total	**685.0**	**787.2**

1. Overview of Market Risk

Despite the fact that MünchenerHyp is a trading book institution, it has not engaged in trading deals for many years and does not plan to in the foreseeable future.

The Bank has almost no deposits business and does not intend to earn large sums from maturity transformation trades. The Bank does strive to obtain maturity matching refinancing to the greatest extent possible, and the remaining interest rate risks are continuously hedged to the greatest extent possible.

The capital market business / Public Pfandbriefe is no longer part of our core business. We only engage in it to ensure that the necessary liquidity is available to manage the LCR and NSFR. This is reflected, for example, by the further contraction of the volume of loans in our Public Sector / Bank's area of business and generally in an increasing focus on Level 1 assets.

The VaR for all assets at a 99% confidence level and a 10-day holding period in 2021 was recorded at a maximum of € 42 million, while the average amount was about € 29 million.

2. Overview of Credit Risk

Credit risk is a core risk within the Bank's ability to bear risk in the economic outlook. The increase compared to the previous year is due to new business as well a re-evaluation of fewer problem loans in the area of commercial property loans outside of Germany. Spread and migration risks are presented separately. The increase in market risk VaR by € 54.2 million is attributable to major changes on volatilities.

3. Overview of Operational Risk

The Bank's regulatory capital requirements for the operational risk are determined by the basic indicator approach. The regulatory capital requirement rose last year to € 32.9 million. Actual losses incurred due to operational risks were, however, far below this figure.

The Bank minimises its operational risks by qualifying its employees, using transparent procedures, automating standard procedures, and by having fixed working instructions, extensive functional testing of the IT systems, as well as appropriate emergency plans and preventive measures. MünchenerHyp has purchased appropriate insurance policies to cover certain kinds of operational risks. Examples of these policies are pecuniary damage liability insurance and fidelity insurance. The insurance coverage is regularly compared with the risks reported by the specialist department as part of their self-assessment process.

The definition includes legal risks. However, it does not include reputational risks which must be viewed separately. Furthermore, due to the Bank's very specific business model, many of the usual forms of operational risks within the banking sector cannot occur at all at MünchenerHyp.

4. Investment and Property Risks

MünchenerHyp has made equity investments only with the Cooperative Financial Network, as well as to a minor extent in a special fund.

The Bank does not have risks related to property as it only has very few properties in its holdings and for which major undisclosed reserves exist.

5. Overview of Liquidity Risk

The regulatory Liquidity Coverage ratio (LCR) and Net Stable Funding Ratio (NSFR) figures were calculated in accordance with regulations. The minimum legal requirements for the LCR ratio were complied with at all times.

Since 30 June 2021, the NSFR has been calculated in accordance with the requirements of CRR II and must be at least 100 percent. In the past six months the average value of the ratio was 112 percent.

In addition to analysing previous developments of both ratios, operational management relies primarily on forecasts of future development of the key figures.

The Bank was continuously able to obtain both covered and uncovered refinancing throughout the entire year. The Bank issued Pfandbriefe with a nominal value of about € 4.0 billion along with more than € 2.4 billion of senior unsecured paper.

Unscheduled outflows of liquidity, such as a sudden surge in collateral required in the derivatives business, did not occur last year.

6. Overview of Capital Management

During the previous business year, MünchenerHyp added € 110.2 million of common equity Tier 1 Capital thereby posting a total capital ratio of 22.8% at the end of the year.

In accordance with its business model, the Bank manages the required level of own funds via regulatory requirements and rules governing risk-bearing capacity.

3.3 Risk Strategy

Risk strategy takes legal requirements into account, especially the KWG and MaRisk. In conformity with Article 25a KWG, MünchenerHyp has a proper business organisation, which, among other purposes, includes the management of, and the ability to bear, risks in accordance with the Bank's risk strategy.

Within its business strategy, MünchenerHyp defines the following segments: Retail Business Germany, International Retail business (Switzerland and Austria), Commercial Domestic, Commercial International and Capital Market Business with the Public Sector and Banks. Strategic and operational objectives are set for each of these segments and should be achieved within the framework of the mid-term business plan.

Strategic and operational objectives are set for each of these segments and should be achieved within the framework of the mid-term business plan. Based on this, the risk strategy states how MünchenerHyp will, or plans to, deal with the risks associated with these business activities. Quantitative and qualitative parameters are set for each risk category and describe how to deal with all significant risks in order to achieve the objectives. In addition, measures are derived from these processes that define how the parameters are to be observed. Thus, MünchenerHyp's risk strategy defines the strategic framework for risk management and encourages risk awareness among all employees within the framework of the Bank's corporate and risk culture. All of MünchenerHyp's employees are aware of the Bank's risk strategy and naturally observe it in their daily work. In determining remuneration parameters, care is taken at all levels that they are aligned with this strategy and support the Bank in attaining its strategic goals.

The Board of Management is responsible for the regular examination and adjustment of the risk strategy and ensures that appropriate procedures exist for the management, supervision and control of risks. The risk strategy is an element of the Bank's internal rules and therefore also within the Supervisory Board's area of responsibility as the institution's controlling body. The risk strategy is submitted and explained directly to the Supervisory Board at least once a year.

3.4 Organisation, Processes and Responsibilities

The institution-specific Credit Handbook describes the competencies and procedural requirements of entities involved in the lending business, defines their responsibilities, and also presents the credit products. The Credit Handbook documents the relevant processes and responsibilities for internal risk management within the organisation through the use of organisational guidelines, process descriptions, handbooks and rating-specific professional instructions. It contains descriptions of organisational safeguarding measures, as well as ongoing automatic measures and controls integrated in the work processes. These include, in particular, separation of functions, the two-person principle, access limitations, payment guidelines, a process for new products and balance confirmations.

The management methods described in the risk strategy continuously provide qualitative and quantitative statements regarding MünchenerHyp's economic situation, including, for example, the development of performance. This evaluation involves aspects of all risk categories. Furthermore, a close coordination procedure exists between the Risk Controlling and Accounting departments at MünchenerHyp.

This process is supervised by the entire Board of Management. The results from the risk management system form the foundation for the multi-year planning calculations, year-end projections, and agreement procedures for approving key figures generated by the Bank's accounting process.

The Bank's Articles of Association as well as the Board's Rules of Procedure define the formal framework for the activities of the Board of Management. As part of its weekly meetings, the Board of Management approves necessary resolutions in accordance with the Board's Rules of Procedure. The Board of Management must request approval from the Supervisory Board for resolutions referring to subjects contained in Article 23 of the Bank's Articles of Association.

The Bank's Supervisory Board holds at least five meetings per year. Each meeting is focused on a special subject. The review of the annual financial statements is the main topic of the spring meeting. The annual joint discussion of the business and risk strategies in accordance with MaRisk, including the functional strategies, takes place at the summer meeting. The Interim Report is the main subject of the autumn meeting. During the last meeting of the year, which usually takes place in December, the rolling multi-year plan is presented. The fifth meeting is organised as a brief constituting session of the Supervisory Board and is held immediately after the regularly scheduled Delegates Meeting in April of every year.

The Bank's risk situation is extensively reported to the Supervisory Board. For this purpose, copies of the credit risk report, the ICAAP and ILAAP reports, as well as the risk report prepared in accordance with MaRisk, are made available to the members of the Supervisory Board. A separate report concerning operational risks is prepared twice a year; additional assessments are submitted as needed. An intensive review and discussion of the risk reports takes place during the meetings of the Risk Committee, which take place about six to eight times per year depending on the need to approve loans.

The competencies of the Risk Committee are governed by the Rules of Procedure of the Supervisory Board. The Rules of Procedure of the Board of Management define the risk-relevant decision-making powers of the Board of Management. Beyond this, there is no other body below the Board of Management that can make final risk-relevant decisions.

In addition to the Risk Committee, the Supervisory Board has delegated its duties to three additional committees: the Nomination Committee, the Remuneration Control Committee, and the Audit Committee. The Nomination Committee and the Remuneration Control Committee generally meet twice a year while the Audit Committee generally meets three times a year.

The Supervisory Board thereby fulfils requirements pursuant to Article 25d KWG. The committees' tasks are shown as follows:

Committee	Task
Audit Committee	Acceptance of auditor's report on annual financial statements
	Acceptance of results of special regulatory audits and internal audits
Risk Committee	Credit approvals, monitoring of credit risks
	Monitoring of additional risk categories
	Review of the risk strategy

The Delegates Meeting is the Bank's highest governing body. As the cooperative has a very high number of members, the general meeting is held in accordance with Article 26 of the Articles of Association as a Delegates Meeting. Every April, the members' delegates receive the reports prepared by the Board of Management and the Supervisory Board. Furthermore, they generally discharge the members of the Board of Management from liability for their activities during the previous business year, decide on the dividend to be distributed, approve amendments to the Articles of Association and conduct elections concerning members of the Supervisory Board. The following guidance issues apply when appointing members to governing bodies:

During the year under review, the Delegates Meeting consisted of 80 members. At the time of their election as a delegate, three-quarters of the delegates served as members of a Board of Management at a primary bank. The remaining members of the Delegates Meeting are persons from all walks of business and society. Delegates are elected to serve 4-year terms.

Supervisory Board

The Supervisory Board currently has twelve members, of which eight were elected as members by the Delegates Meeting and four were elected by employees as employee representatives in accordance with the One-Third Participation Act (Drittelbeteiligungsgesetz).

The composition of the Supervisory Board can be found in the Management Bodies Annex . The following members of the Supervisory Board currently sit on the Compensation Control Committee: Dr. Hermann Starnecker, Gregor Scheller, Thomas Höbel, Jürgen Hölscher and Frank Wolf-Kunz (elected employee representative on the Supervisory Board).

The Compensation Control Committee monitors the appropriate design of the compensation systems for the managing directors and employees and, in particular, the appropriate design of compensation for the heads of the risk control function and the compliance function, as well as such employees who have a material impact on the overall risk profile of the institution, and assists the Supervisory Board in monitoring the appropriate design of compensation systems for the Bank's employees; the effects of the compensation systems on risk, capital and liquidity management shall be assessed. The Compensation Control Committee also prepares the resolutions of the Supervisory Board on the compensation of the Board of Management members, paying particular attention to the effects of the resolutions on the risks and risk management of the Company. Finally, it supports the Supervisory Board in monitoring the proper involvement of internal control and all other relevant areas in the design of the compensation systems.

The appointment of new members to the Board of Management is governed by legal requirements stated in the Cooperatives Act and the German Banking Act (KWG), as well as in the Rules of Procedure of the Supervisory Board and the Bank's Articles of Association. The Supervisory Board appoints and dismisses members of the Board of Management and consults with the Board of Management on long-term succession planning. The Supervisory Board can delegate preparations to appoint members of the Board of Management and selection of candidates for election to the Supervisory Board's Nomination Committee.

The Nomination Committee supports the Supervisory Board in identifying candidates to fill a position on the Board of Management. In carrying out this role, the Nomination Committee considers candidates against a range of criteria including the balance and different areas of expertise, abilities and experience of all members of the involved executive bodies.

The Supervisory Board advises and supervises the Board of Management. The competencies and obligations of the Supervisory Board are defined by the Cooperatives Act and the German Banking Act (KWG), as well as the Rules of Procedure of the Supervisory Board and MünchenerHyp's Articles of Association.

The Supervisory Board has set itself concrete objectives for its composition. In particular, competencies of the individual Supervisory Board members play an important role. These are reviewed as part of an event-related occasion or an annual aptitude assessment, and appropriate (training) measures are derived. In addition, pursuant to KWG Article 25d, para. 2, para. 11 (No. 3 and 4), and within the framework of an annual self-evaluation of the Supervisory Board, the body as a whole, as well as the individual members of the Supervisor Board, is examined regarding the required expertise, abilities, professional experience, as well as reliability and possible conflicts of interest.

The self-evaluation of the Supervisory Board pursuant to KWG Article 25d, para. 11 (No. 3 and 4) revealed that the collective knowledge, skills and experience of the Supervisory Board received an average grade of 1.52 (scale 1 = very good to 5 = not applicable).

The majority of the members of the Supervisory Board have more than 20 years of experience in banking or finance. Almost all of the members of the Supervisory Board who serve as members of the board of credit cooperatives of different sizes therefore bring with them the required banking expertise, as well as knowledge concerning risk management, financial reporting and auditing. In addition, the members of the Supervisory Board also have in-depth knowledge of MünchenerHyp as on average they have been members of the Supervisory Board for over 5 years.

Board of Management

The Board of Management consists of at least two members, and generally has three members. The Supervisory Board can appoint a member to be the spokesperson or chairperson of the board.

The members of the Board of Management are listed in the Management Bodies Annex. Ever since the Bank became subject to the requirements of co-determination, the Supervisory Board and the Board of Management have set a quantitative quota for women in the various executive levels pursuant to the German law "For the equal participation of women and men in executive positions in the private economy and the public sector", as well as Article 9 of the Cooperatives Act. Thus mid-term plans call for women to represent 20% of the Supervisory Board, 33% of the Board of Management and 20% on both levels below the Board of Management. On 31 December 2021, women represented 17% of the Supervisory Board, 0% of the Board of Management and 22% of the first executive level and 18% of the second executive level. While keeping the interests of the Bank in mind, the Supervisory Board intends to raise the percentage of the hitherto underrepresented gender in the Supervisory Board and the Board of Management over the midterm. To this end, as part of the succession planning for members of the Supervisory Board and the Management Board, opportunities will be viewed particularly closely for the purpose of raising the share of the hitherto underrepresented genders in these bodies.

The professional careers of the members of the Board of Management can be viewed on the Bank's website.

3.5 Risk Tolerance and Risk Capacity

An important basis for managing risk consists of, on the one hand, the analysis and presentation of existing risks, and, on the other, comparing these risks with the existing risk cover potential (ability to bear risk). MünchenerHyp calculates its ability to bear risk on a normative basis as well as on an economic outlook basis.

The normative outlook is the more important method used to manage risks and is used to determine on a period-oriented basis if the Bank would still have adequate equity capital ratios exceeding legally required minimums in accordance with ICAAP guidelines after the occurrence of risks contained in all relevant risk categories. Potential risk coverage that may be used to cover risks in this scenario is the available regulatory equity capital. Furthermore, an economic (present value) outlook is presented as a supplementary scenario.

The afore-mentioned approaches used to calculate the Bank's ability to bear risk quantify counterparty risks, market price risks, credit spread and migration risks, operational risks, investment risks and property risks. An additional buffer is employed for model risks and other risks such as reputational risks and business risks.

Liquidity risks (incl. placement risks) are not taken into account within the framework of calculating the Bank's ability to bear risk, as liquidity risks cannot be cushioned with additional (liquid) equity capital. Appropriate control procedures are in place to manage these risks and have been approved by the Bank's Board of Management within the framework of the Bank's internal monitoring system.

The professional concepts and models used to calculate the ability to bear risks are continuously further developed in accordance with regulatory requirements. Beyond this, the assumptions are regularly validated and adjusted if necessary. Within the framework of the normative perspective, adverse scenarios and, within the framework of both perspectives, additional stress scenarios are employed to account for extraordinary yet plausible situations which cannot be described via calculations used to determine the Bank's ability to bear risk.

The results of the calculations concerning the Bank's ability to bear risk are provided to the Board of Management and the Supervisory Board no less than once a quarter. Ad hoc reports are foreseen in the event of significantly worsening developments affecting the Bank's ability to bear risk. Recommended action will be stated in the report should action be necessary. Calculation of the Bank's ability to bear risk provides an impulse for mid-term planning of capital requirements as the normative perspective gives an outlook over the next four business years following the end of the current business year. If this perspective indicates a need for more capital, the persons responsible for planning mid-term capital will respond appropriately.

4 OWN FUNDS

4.1 Structure

MünchenerHyp conducts its business in the legal format of a registered cooperative. In addition to reserves and funds for general banking risk pursuant to Article 340 (g) HGB, core capital consists of equity investments in the form of cooperative shares. A single cooperative share costs € 70.00.

As of 31 December 2021, the volume of these shares was € 1,243.2 million, of which € 19.7 million was called.

On 31 December 2021, MünchenerHyp had € 436.7 million of available distributable items (ADI) at its disposal.

As of the end of December 2021, Tier 2 (T2) capital amounted to € 43.1 million, of which € 2.6 million was subordinated liabilities with an average interest rate of 5.68%. These liabilities expire between 25 March 2022 and 1 December 2022.

On 31 December 2021, total liable equity capital amounted to € 1,790.1 million. The following list presents the specific elements of equity capital pursuant to Article 492 (3) CRR.

TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a)	(b)
		Amounts	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
Common Equity Tier 1 (CET1) capital: instruments and reserves			
1	Capital instruments and the related share premium accounts	1,223.5	
	of which: Instrument type 1	–	
	of which: Instrument type 2	–	
	of which: Instrument type 3	–	
2	Retained earnings	372.0	
3	Accumulated other comprehensive income (and other reserves)	–	
EU-3a	Funds for general banking risk	55.0	
4	Amount of qualifying items referred to in Article 484 (3) CRR and the related share premium accounts subject to phase out from CET1	–	
5	Minority interests (amount allowed in consolidated CET1)	–	
EU-5a	Independently reviewed interim profits net of any foreseeable charge or dividend	–	
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**1,650.5**	

As the Bank does not constitute a consolidated group of companies in terms of regulatory requirements, column b of the EU CC1 reporting template is not filled in.

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Table 3 continued from page 12

TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a) Amounts	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
Common Equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative amount)	–	
8	Intangible assets (net of related tax liability) (negative amount)	– 1.4	
9	Empty set in the EU	–	
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	–	
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	–	
12	Negative amounts resulting from the calculation of expected loss amounts	–	
13	Any increase in equity that results from securitised assets (negative amount)	–	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	–	
15	Defined-benefit pension fund assets (negative amount)	–	
16	Direct, indirect and synthetic holdings by an institution of own CET1 instruments (negative amount)	–	
17	Direct, indirect and synthetic holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	–	
18	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	–	
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	–	
20	Empty set in the EU	–	

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Table 3 continued from page 13

TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a) Amounts	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
EU-20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	–	
EU-20b	of which: qualifying holdings outside the financial sector (negative amount)	–	
EU-20c	of which: securitisation positions (negative amount)	–	
EU-20d	of which: free deliveries (negative amount)	–	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	–	
22	Amount exceeding the 17,65% threshold (negative amount)	–	
23	of which: direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	–	
24	Empty set in the EU	–	
25	of which: deferred tax assets arising from temporary differences	–	
EU-25a	Losses for the current financial year (negative amount)	–	
EU-25b	Foreseeable tax charges relating to CET1 items except where the institution suitably adjusts the amount of CET1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses (negative amount)	–	
26	Empty set in the EU	–	
27	Qualifying AT1 deductions that exceed the AT1 items of the institution (negative amount)	–	
27a	Other regulatory adjustments	– 23.1	
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**– 24.5**	
29	**Common Equity Tier 1 (CET1) capital**	**1,626.0**	
Additional Tier 1 (AT1) capital: instruments			
30	Capital instruments and the related share premium accounts	121.0	
31	of which: classified as equity under applicable accounting standards	–	
32	of which: classified as liabilities under applicable accounting standards	121.0	
33	Amount of qualifying items referred to in Article 484 (4) CRR and the related share premium accounts subject to phase out from AT1 as described in Article 486(3) CRR	–	

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Table 3 continued from page 14

TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a) Amounts	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
EU-33a	Amount of qualifying items referred to in Article 494a(1) CRR subject to phase out from AT1	–	
EU-33b	Amount of qualifying items referred to in Article 494b(1) CRR subject to phase out from AT1	–	
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	–	
35	of which: instruments issued by subsidiaries subject to phase out	–	
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**121.0**	
Additional Tier 1 (AT1) capital: regulatory adjustments			
37	Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	–	
38	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	–	
39	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	–	
40	Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	–	
41	Empty set in the EU	–	
42	Qualifying T2 deductions that exceed the T2 items of the institution (negative amount)	–	
42a	Other regulatory adjustments to AT1 capital	–	
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**–**	
44	**Additional Tier 1 (AT1) capital**	**121.0**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**1,747.0**	

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TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a) Amounts	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
Tier 2 (T2) capital: instruments			
46	Capital instruments and the related share premium accounts	2.6	
47	Amount of qualifying items referred to in Article 484 (5) CRR and the related share premium accounts subject to phase out from T2 as described in Article 486(4) CRR	–	
EU-47a	Amount of qualifying items referred to in Article 494a (2) CRR subject to phase out from T2	–	
EU-47b	Amount of qualifying items referred to in Article 494b (2) CRR subject to phase out from T2	–	
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	–	
49	of which: instruments issued by subsidiaries subject to phase out	–	
50	Credit risk adjustments	40.5	
51	Tier 2 (T2) capital before regulatory adjustments	43.1	
Tier 2 (T2) capital: regulatory adjustments			
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	–	
53	Direct, indirect and synthetic goldings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	–	
54	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	–	
54a	Empty set in the EU	–	
55	Direct, indirect and synthetic holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	–	
56	Empty set in the EU	–	

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TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a)	(b)
		Amounts	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
EU-56a	Qualifying eligible liabilities deductions that exceed the eligible liabilities items of the institution (negative amount)	–	
EU-56b	Other regulatory adjustments to T2 capital	–	
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**–**	
58	**Tier 2 (T2) capital**	**43.1**	
59	**Total capital (TC = T1 + T2)**	**1,790.1**	
60	**Total Risk exposure amount**	**7,975.3**	
Capital ratios and requirements including buffers			
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	20.39	
62	Tier 1 (as a percentage of total risk exposure amount)	21.91	
63	Total capital (as a percentage of total risk exposure amount)	22.45	
64	Institution CET1 overall capital requirement (CET1 requirement in accordance with Article 92 (1) CRR, plus additional CET1 requirement which the institution is required to hold in accordance with point (a) of Article 104(1) CRD, plus combined buffer requirement in accordance with Article 128(6) CRD) expressed as a percentage of risk exposure amount)	7.88	
65	of which: capital conservation buffer requirement	2.50	
66	of which: countercyclical buffer requirement	0.04	
67	of which: systemic risk buffer requirement	–	
EU-67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	–	
EU-67b	of which: additional own funds requirements to address the risks other than the risk of excessive leverage	0.84	
68	**Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)**	**12.95**	
69	[non relevant in EU regulation]	–	
70	[non relevant in EU regulation]	–	
71	[non relevant in EU regulation]	–	

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TABLE 3: TEMPLATE EU CC1 – COMPOSITION OF REGULATORY OWN FUNDS

		(a) Amounts	(b) Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
Amounts below the thresholds for deduction (before risk weighting)			
72	Direct and indirect holdings of own funds and eligible liabilities of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	8.7	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	–	
74	Empty set in the EU	–	
75	Deferred tax assets arising from temporary differences (amount below 17,65% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met)	–	
Applicable caps on the inclusion of provisions in Tier 2			
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	3.8	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	14.2	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	40.2	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	36.7	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)			
80	Current cap on CET1 instruments subject to phase out arrangements	–	
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	–	
82	Current cap on AT1 instruments subject to phase out arrangements	–	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	–	
84	Current cap on T2 instruments subject to phase out arrangements	–	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	–	

TABLE 4: EU KM1 – KEY METRICS

		31.12.2021	30.09.2021	30.06.2021	31.03.2021	31.12.2020
Available own funds (amounts)						
1	Common Equity Tier 1 (CET1) capital	1,626.0	1,575.6	1,557.8	1,531.9	1,517.0
2	Tier 1 capital	1,747.0	1,691.0	1,671.7	1,644.8	1,632.7
3	Total capital	1,790.1	1,726.0	1,710.5	1,688.7	1,676.4
Risk-weighted exposure amounts						
4	Total risk-weighted exposure amount	7,975.3	7,795.0	7,919.2	7,607.5	7,349.6
Capital ratios (as a percentage of risk-weighted exposure amount)						
5	Common Equity Tier 1 ratio (%)	20.39	20.21	19.67	20.14	20.64
6	Tier 1 ratio (%)	21.91	21.69	21.11	21.62	22.21
7	Total capital ratio (%)	22.45	22.14	21.60	22.20	22.81
Additional own funds requirements to address risks other than the risk of excessive leverage (as a percentage of risk-weighted exposure amount)						
EU 7a	Additional own funds requirements to address risks other than the risk of excessive leverage (%)	1.50	1.50	1.50	1.50	1.50
EU 7b	of which: to be made up of CET1 capital (percentage points)	0.84	0.84	0.84	0.84	0.84
EU 7c	of which: to be made up of Tier 1 capital (percentage points)	1.13	1.13	1.13	1.13	1.13
EU 7d	Total SREP own funds requirements (%)	9.50	9.50	9.50	9.50	9.50
Combined buffer requirement (as a percentage of risk-weighted exposure amount)						
8	Capital conservation buffer (%)	2.50	2.50	2.50	2.50	2.50
EU 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)					
9	Institution specific countercyclical capital buffer (%)	0.04	0.04	0.04	0.04	0.02
EU 9a	Systemic risk buffer (%)					
10	Global Systemically Important Institution buffer (%)					
EU 10a	Other Systemically Important Institution buffer					
11	Combined buffer requirement (%)	2.54	2.54	2.54	2.54	2.52
EU 11a	Overall capital requirements (%)	12.04	12.04	12.04	12.04	12.02
12	CET1 available after meeting the total SREP own funds requirements (%)	12.95	12.64	12.10	–	13.31

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TABLE 4: EU KM1 – KEY METRICS

		31.12.2021	30.09.2021	30.06.2021	31.03.2021	31.12.2020
Leverage ratio						
13	Leverage ratio total exposure measure	48,451.3	47,505.5	46,742.5	47,179.4	45,497.0
14	Leverage ratio	3.61	3.56	3.58	3.49	3.58
Additional own funds requirements to address risks of excessive leverage (as a percentage of leverage ratio total exposure amount)						
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)					
EU 14b	of which: to be made up of CET1 capital (percentage points)					
EU 14c	Total SREP leverage ratio requirements (%)	3.04	3.08	3.04	–	–
Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)						
EU 14d	Leverage ratio buffer requirement (%)					
EU 14e	Overall leverage ratio requirements (%)	3.04	3.08	3.04	–	–
Liquidity Coverage Ratio						
15	Total high-quality liquid assets (HQLA) (Weighted value -average)	2,296.06	2,090.88	1,960.97	1,775.91	1,671.2
EU 15a	Cash outflows – Total weighted value	1,064.51	1,038.64	1,083.29	1,171.21	1,123.2
EU 15b	Cash inflows – Total weighted value	406.57	440.52	409.64	444.57	465.0
16	Total net cash outflows (adjusted value)	657.94	606.81	682.34	735.33	704.4
17	Liquidity coverage ratio (%)	443.34	403.38	361.18	286.78	306.5
Net Stable Funding Ratio						
18	Total available stable funding	46,247.0	46,349.5	45,442.8	–	–
19	Total required stable funding	42,094.8	41,110.3	40,500.2	–	–
20	NSFR ratio (%)	109.9	112.7	112.2	–	–

The following Table 5 provides a description of the main features of the Common Equity Tier 1, Additional Tier 1 and Tier 2 Capital Instruments issued by MünchenerHyp pursuant to Article 437 (1) b) CRR. This information is presented using Annex II of the Commission Implementing Regulation (EU) No. 1423 / 2013 of 20 December 2013 laying down implementing technical standards with regard to disclosure of own funds requirements for institutions.

Legal rules pertaining to shares in the cooperative are based on the terms of the German Cooperatives Act and the Articles of Association of MünchenerHyp as a registered cooperative. MünchenerHyp's Articles of Association are available at the Bank's homepage under Company / Members (https://www.muenchenerhyp.de/sites/default/files/downloads/2020-12/mhyp_Satzung_DEZ_2020_en_WEB.pdf). The terms and conditions of the AT1 bond are available at the Bank's homepage under Investors/Reports and presentations (https://www.muenchenerhyp.de/sites/default/files/downloads/2019-12/AT1%20-%20Conditions%20of%20Issue%20of%20Capital%20Notes_neu_0.pdf). All of the other equity instruments are defined in individual agreements with creditors, and for this reason issuing prospectuses are not relevant.

TABLE 5: EU CCA – COMPOSITION OF REGULATORY OWN FUNDS
PART 1 OF 3

		Share in cooperative	AT1 Bond
1	Issuer	MünchenerHyp	MünchenerHyp
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	N / A	ISIN CH0508236590
3	Governing law(s) of the instrument	German	German
4	Transitional CRR rules	CET1	AT1
5	Post-transitional CRR rules	CET1	AT1
6	Eligible at solo / (sub-)consolidated / solo & (sub-)consolidated level	Solo	Solo
7	Instrument type (types to be specified by each jurisdiction)	Share in cooperative	Bond
8	Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	1,223.5	EUR 121.0
9	Nominal amount of instrument	1,223.5	CHF 125
9a	Issue price	1,223.5	CHF 125
9b	Redemption price	1,223.5	CHF 125
10	Accounting classification	Equity	Liability
11	Original date of issuance	Continuous since 1896	25.11.19
12	Perpetual or dated	Perpetual	Perpetual
13	Original maturity date	N / A	N / A
14	Issuer call subject to prior supervisory approval	N / A	Regulatory; tax-related
15	Optional call date, contingent call dates and redemption amount	N / A	Earliest termination date 02.06.2025
16	Subsequent call date, if applicable	N / A	Thereafter, with effect as of each interest payment date

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TABLE 5: EU CCA – COMPOSITION OF REGULATORY OWN FUNDS
PART 1 OF 3

		Share in cooperative	AT1 Bond
17	Fixed or floating dividend / coupon	Floating	Fixed
18	Coupon rate and any related index	N / A	3.125; resets from (but excluding) 1 June 2025 and every 5 years thereafter to the prevailing 5y CHF mid-market swap rate plus a margin per annum
19	Existence of dividend stoppers	N / A	N / A
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	N / A	Fully discretionary
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	N / A	Fully discretionary
21	Existence of step up or other incentive to redeem	N / A	N / A
22	Non-cumulative or cumulative	N / A	N / A
23	Convertible or non-convertible	No	No
24	If convertible, conversion trigger(s)	N / A	N / A
25	If convertible, fully or partially	N / A	N / A
26	If convertible, conversion rate	N / A	N / A
27	If convertible, mandatory or optional conversion	N / A	N / A
28	If convertible, specify instrument type convertible into	N / A	N / A
29	If convertible, specify issuer of instrument it converts into	N / A	N / A
30	Write-down features	N / A	Yes
31	If write-down, write-down trigger(s)	Resolution approved by Delegates Meeting	If Common Equity Tier 1 Capital ratio falls below 7.00%
32	If write-down, full or partial	Total and partial	Total and partial
33	If write-down, permanent or temporary	Permanent	Temporary
34	If temporary write-down, description of write-up mechanism	N / A	Yes
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	AT1	Subord.
36	Non-compliant transitional features	N / A	N / A
37	If yes, specify non-compliant features	N / A	N / A

TABLE 5: EU CCA – COMPOSITION OF REGULATORY OWN FUNDS
PART 2 OF 3

		Subord.	Subord.	Subord.
1	Issuer	MünchenerHyp	MünchenerHyp	MünchenerHyp
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	N / A	N / A	N / A
3	Governing law(s) of the instrument	German	German	German
4	Transitional CRR rules	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo / (sub-)consolidated / solo & (sub-)consolidated level	Solo	Solo	Solo
7	Instrument type (types to be specified by each jurisdiction)	Subord. liabilities	Subord. liabilities	Subord. liabilities
8	Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	0.2	0.0	0.1
9	Nominal amount of instrument	4.5	0.2	0.8
9a	Issue price	4.5	0.2	0.8
9b	Redemption price	4.5	0.2	0.8
10	Accounting classification	Liability	Liability	Liability
11	Original date of issuance	25.03.10	07.07.10	07.07.10
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	25.03.22	07.07.22	07.07.22
14	Issuer call subject to prior supervisory approval	Tax-related	Tax-related	Tax-related
15	Optional call date, contingent call dates and redemption amount	N / A	N / A	N / A
16	Subsequent call date, if applicable	N / A	N / A	N / A

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TABLE 5: EU CCA – COMPOSITION OF REGULATORY OWN FUNDS
PART 2 OF 3

		Subord.	Subord.	Subord.
17	Fixed or floating dividend / coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	5.57	5.1	5.1
19	Existence of dividend stoppers	If non-compliant with legal equity capital requirements	If non-compliant with legal equity capital requirements	If non-compliant with legal equity capital requirements
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	N / A	N / A	N / A
22	Non-cumulative or cumulative	N / A	N / A	N / A
23	Convertible or non-convertible	No	No	No
24	If convertible, conversion trigger(s)	N / A	N / A	N / A
25	If convertible, fully or partially	N / A	N / A	N / A
26	If convertible, conversion rate	N / A	N / A	N / A
27	If convertible, mandatory or optional conversion	N / A	N / A	N / A
28	If convertible, specify instrument type convertible into	N / A	N / A	N / A
29	If convertible, specify issuer of instrument it converts into	N / A	N / A	N / A
30	Write-down features	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	Insolvency, insolvency proceedings or proceedings to avoid insolvency	Insolvency, insolvency proceedings or proceedings to avoid insolvency	Insolvency, insolvency proceedings or proceedings to avoid insolvency
32	If write-down, full or partial	Total and partial	Total and partial	Total and partial
33	If write-down, permanent or temporary	Permanent	Permanent	Permanent
34	If temporary write-down, description of write-up mechanism	N / A	N / A	N / A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Non-subordinated liabilities	Non-subordinated liabilities	Non-subordinated liabilities
36	Non-compliant transitional features	N / A	N / A	N / A
37	If yes, specify non-compliant features	N / A	N / A	N / A

TABLE 5: EU CCA – COMPOSITION OF REGULATORY OWN FUNDS
PART 3 OF 3

		Subord.	**Subord.**	**Subord.**
1	Issuer	MünchenerHyp	MünchenerHyp	MünchenerHyp
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	N / A	N / A	N / A
3	Governing law(s) of the instrument	German	German	German
4	Transitional CRR rules	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo / (sub-)consolidated / solo & (sub-)consolidated level	Solo	Solo	Solo
7	Instrument type (types to be specified by each jurisdiction)	Subord. liabilities	Subord. liabilities	Subord. liabilities
8	Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	0.3	0.1	1.8
9	Nominal amount of instrument	3	1	10
9a	Issue price	3	1	10
9b	Redemption price	3	1	10
10	Accounting classification	Liability	Liability	Liability
11	Original date of issuance	07.07.10	07.07.10	01.12.09
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	07.07.22	07.07.22	01.12.22
14	Issuer call subject to prior supervisory approval	Tax-related	Tax-related	Tax-related
15	Optional call date, contingent call dates and redemption amount	N / A	N / A	N / A
16	Subsequent call date, if applicable	N / A	N / A	N / A

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TABLE 5: EU CCA – COMPOSITION OF REGULATORY OWN FUNDS
PART 3 OF 3

		Subord.	**Subord.**	**Subord.**
17	Fixed or floating dividend / coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	5.1	5.1	6.01
19	Existence of dividend stoppers	If non-compliant with legal equity capital requirements	If non-compliant with legal equity capital requirements	If non-compliant with legal equity capital requirements
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	N / A	N / A	N / A
22	Non-cumulative or cumulative	N / A	N / A	N / A
23	Convertible or non-convertible	No	No	No
24	If convertible, conversion trigger(s)	N / A	N / A	N / A
25	If convertible, fully or partially	N / A	N / A	N / A
26	If convertible, conversion rate	N / A	N / A	N / A
27	If convertible, mandatory or optional conversion	N / A	N / A	N / A
28	If convertible, specify instrument type convertible into	N / A	N / A	N / A
29	If convertible, specify issuer of instrument it converts into	N / A	N / A	N / A
30	Write-down features	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	Insolvency, insolvency proceedings or proceedings to avoid insolvency	Insolvency, insolvency proceedings or proceedings to avoid insolvency	Insolvency, insolvency proceedings or proceedings to avoid insolvency
32	If write-down, full or partial	Total and partial	Total and partial	Total and partial
33	If write-down, permanent or temporary	Permanent	Permanent	Permanent
34	If temporary write-down, description of write-up mechanism	N / A	N / A	N / A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Non-subordinated liabilities	Non-subordinated liabilities	Non-subordinated liabilities
36	Non-compliant transitional features	N / A	N / A	N / A
37	If yes, specify non-compliant features	N / A	N / A	N / A

4.2 Countercyclical Capital Buffer

The Countercyclical Capital Buffer (CCB) is regarded as a macro-prudential instrument of banking supervision policy. The purpose of the CCB is to counteract the risk of excessive credit growth in the banking sector. The CCB is intended to ensure that banks build up an additional capital buffer during times of excessive credit growth. This buffer generally increases banks' ability to absorb losses. It is explicitly stated that the buffer may be completely depleted to absorb losses during times of crisis, thereby avoiding the formation of a credit crunch. The countercyclical capital buffer may amount to the equivalent of 0 to 2.5% of the total sum of risk-weighted assets.

MünchenerHyp took into account the requirements of the respective European supervisory authorities for disclosure of the institution-specific capital buffer for the defined country-specific CCB on the reporting date of 31 December 2021.

The institution-specific CCB is generally determined by multiplying the percentage figure of the institution-specific countercyclical capital buffer with the aggregate exposure amount pursuant to Article 82 para. 3 CRR.

In contrast, the determination of the institution-specific capital buffer is defined by the terms of Article 10d para. 2 of the German Banking Act. Based on this, the capital buffer is equal to the weighted average of the countercyclical capital buffer percentages in the individual countries where MünchenerHyp holds substantial positions. Substantial exposure positions are defined in Article 36 SolvV (all claim categories defined by Article 112 (a to f) CRR) and generally comprise private sector exposure positions.

The location of all substantial risk positions has to be determined in accordance with Commission Delegated Regulation (EU) No. 1152/2014 of 4 June 2014 in order to weight these substantial risk positions with the countercyclical capital buffer.

Institutions have to disclose this geographic distribution of the substantial risk positions and the calculated amount of the institution-specific countercyclical capital buffer pursuant to the terms of Article 440 CRR in association with Commission Delegated Regulation (EU) No. 1555/2015 of 28 May 2015.

Institutions have to disclose this geographic distribution of substantial risk positions and the calculated amount of the institution-specific countercyclical capital buffer pursuant to the terms of Article 440 CRR in association with Commission Delegated Regulation (EU) No. 1555/2015 of 28 May 2015. This requirement is met with the following Tables 6 and 7.

TABLE 6: EU CCYB1 GEOGRAPHICAL DISTRIBUTION OF CREDIT EXPOSURES RELEVANT FOR THE CALCULATION OF THE COUNTERCYCLICAL CAPITAL BUFFER [2]

	Breakdown by country	General credit exposures: Value of exposure positions (SA)	General credit exposures: Value of exposure positions (IRBA)	Relevant credit exposures – Market risk: Total value of long and short positions in the trading book	Relevant credit exposures – Market risk: Value of exposure positions in the trading book (internal model)	Securitisation exposures Exposure value in the trading book	Total exposure value	Own fund requirements: Relevant credit risk exposures – Credit risk	Own fund requirements: Relevant credit exposures – Market risk	Own fund requirements: Relevant credit exposures – Securitisation positions in the trading book	Own fund requirements: Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Counter-cyclical buffer rate (%)
	005	010	020	030	040	055	060	070	080	090	100	110	120	130
01	Austria	61.1	109.2	–	–	–	170.3	4.2	–	–	4.2	52.5	0.74	–
02	Belgium	–	63.6	–	–	–	63.6	1.4	–	–	1.4	17.2	0.24	–
03	Bermuda	–	23.9	–	–	–	23.9	0.7	–	–	0.7	8.3	0.12	–
04	British Virgin Islands	–	8.5	–	–	–	8.5	0.3	–	–	0.3	3.2	0.04	–
05	Cyprus	–	10.9	–	–	–	10.9	0.3	–	–	0.3	3.5	0.05	–
06	Denmark	–	39.0	–	–	–	39.0	0.2	–	–	0.2	2.8	0.04	–
07	Finland	–	45.0	–	–	–	45.0	0.2	–	–	0.2	2.3	0.03	–
08	France	34.3	421.8	–	–	–	456.1	11.8	–	–	11.8	147.6	2.09	–
09	Germany	515.7	35,353.7	–	–	–	35,869.4	366.0	–	–	366.0	4,574.6	64.66	–
10	Great Britain	–	92.0	–	–	–	92.0	3.3	–	–	3.3	41.0	0.58	–
11	Guernsey	–	38.6	–	–	–	38.6	1.2	–	–	1.2	15.1	0.21	–
12	Ireland	–	1.0	–	–	–	1.0	0.0	–	–	0.0	0.4	0.01	–
13	Jersey	–	145.5	–	–	–	145.5	4.9	–	–	4.9	61.5	0.87	–
14	Luxembourg	–	2,475.1	–	–	–	2,475.1	46.2	–	–	46.2	578.1	8.17	0.50
15	Serbia and Kosovo	0.2	–	–	–	–	0.2	0.0	–	–	0.0	0.1	0.00	–
16	Spain	–	704.7	–	–	–	704.7	19.9	–	–	19.9	248.9	3.52	–
17	Sweden	–	15.1	–	–	–	15.1	0.1	–	–	0.1	0.9	0.01	–
18	Switzerland	9.9	5,382.3	–	–	–	5,392.2	33.4	–	–	33.4	417.4	5.90	–
19	The Netherlands	–	797.2	–	–	–	797.2	16.2	–	–	16.2	202.5	2.86	–
20	USA	856.3	33.8	–	–	–	890.1	55.7	–	–	55.7	696.8	9.85	–
21	Total	1,477.5	45,760.9	–	–	–	47,238.4	566.0	–	–	566.0	7,074.7	100.00	

[2] The presentation does not constitute an overall breakdown of the loan portfolio, but is rather based on Article 440 (1a) CRR.

TABLE 7: EU CCYB2 – AMOUNT OF INSTITUTION SPECIFIC COUNTERCYCLICAL CAPITAL BUFFER

		010
010	Total risk exposure amount	7,975.3
020	Institution-specific countercyclical capital buffer rate	0.04%
030	Institution-specific countercyclical capital buffer requirement	3.3

4.3 Appropriateness

In principle, MünchenerHyp applies IRBA for parts of its credit portfolio to calculate regulatory capital requirements in accordance with the CRR and pursuant to the approvals received from the regulatory authorities to use it. The basic IRBA is employed to determine the amount of equity capital required to back the major portion of the Corporates and Institutions category of loans. This means that the PD is estimated. The advanced IRBA will be used for Retail Business Germany, Retail Business Small and Medium-Sized Enterprises (SME), and Retail Business PostFinance. This means that in addition to the PD, the LGD will also be estimated. In order to comply with regulatory requirements, the standardised approach for credit risk (KSA) will be applied to determine the level of equity capital required for the remainder of the portfolio.

With total required equity capital (required equity capital) of € 638.0 million on 31 December 2021, the total key figure was 22.45%, while the CET1 ratio was 20.39% and the T1 ratio was 21.91%. This means that the T1 ratio of 8%, which is also required by the ECB's stress test, as was as the Pillar 2 Requirement (P2R) of 1.5%, was exceeded by a wide margin. The split of equity capital required per 31 December 2021 in different risk categories and exposure classes is summarised in Tables 8 to 10. The equity capital required for counterparty risks from the IRBA positions amounts to € 491.2 million, and € 90.9 million for counterparty risks from the KSA positions. Equity capital required for operational risks and credit valuation adjustments is significantly lower with € 36.1 million and € 19.8 million respectively. The basic indicator approach is used to calculate operational risks. The standard method is used to calculate equity capital requirements arising from credit valuation adjustments (CVA risk).

TABLE 8: EQUITY CAPITAL REQUIRED FOR COUNTERPARTY RISKS – IRBA PORTFOLIOS

Counterparty risks for IRBA portfolios		Equity capital requirement
1.	Central governments	–
2.	Institutions	15.6
3.	Corporates	253.4
4.	Retail business	211.0
5.	Equity investments	–
6.	Securitisations	–
	of which, re-securitisations	–
7.	Other non-credit obligation assets	11.2
	Total	**491.2**

TABLE 9: EQUITY CAPITAL REQUIRED FOR OPERATIONAL RISKS AND MARKET RISKS

Operational risk and market risks		Equity capital requirement
1.	Operational risk (basic indicator approach)	36.1
2.	CVA risk (based on standardised method)	19.8
	Total	**55.9**

TABLE 10: EQUITY CAPITAL REQUIRED FOR COUNTERPARTY RISKS – KSA PORTFOLIOS

Counterparty risks for KSA portfolios		Equity capital requirement
1.	Sovereigns and central banks	–
2.	Regional and local administrative authorities	–
3.	Public entities	0.2
4.	Multilateral development banks	0.4
5.	International organisations	–
6.	Institutions	–
7.	Corporates	45.7
8.	Retail business	1.5
9.	Exposures secured by properties	8.1
10.	Positions associated with particularly high risk	3.6
11.	Equity investments (grandfathering)	16.7
12.	Other positions	0.1
13.	Collective investment undertakings	11.7
14.	Positions in default	2.9
	Total	**90.9**

The level of required equity capital is planned as part of MünchenerHyp's multi-year planning calculations and care is taken to ensure that the equity capital requirements demanded by the regulatory authority are fully met at all times. MünchenerHyp internally judges the appropriateness of own funds in line with the regulatory requirements arising from CRR/CRD IV.

4.4 Balance Sheet Reconciliation

MünchenerHyp is not a member of a consolidated group of companies in terms of German commercial law or in terms of regulatory requirements. The audited and published annual financial statements are prepared in accordance with German commercial law and therefore contain all of the positions that are elements of regulatory equity capital and are to be deducted therefrom including assets, liabilities such as promissory notes, or other on-balance sheet items that influence regulatory capital such as intangible assets. For this reason, a transfer of the on-balance sheet items of companies included in consolidation for regulatory purposes does not take place.

Table 11 presents the transfer of equity capital as reported on the balance sheet to regulatory equity capital.

TABLE 11: RECONCILIATION OF ON-BALANCE SHEET EQUITY CAPITAL TO REGULATORY EQUITY CAPITAL

	31.12.2021
Equity capital reported on-balance sheet	**1,682.3**
Paid-up capital	1,243.2
Revenue reserves	372.0
Unappropriated profit	67.1
Funds for general banking risks	55.0
Total reported on-balance sheet	**1,737.3**
Regulatory adjustments to items reported on-balance sheet	
Accrued future dividends	– 67.1
Terminated paid-up capital	– 19.7
Allocations to funds for general banking risks reported in annual financial statements	–
Irrevocable payment commitments for the banking levy	– 18.4
Deduction for individual adjustments to value	– 4.7
Allocation to revenue reserves from annual results	–
Intangible assets (amount of reduction in Tier 1)	– 1.4
As reported on-balance sheet	– 1.4
Residual amounts deducted from Additional Tier 1 Capital with regard to deduction from Common equity Tier 1 Capital during the transitional period pursuant to Article 472 CRR	–
Shortfall of provisions to expected losses (amount of reduction in Tier 1)	–
Common equity Tier 1 Capital	**1,260.0**
Hybrid capital instruments	
As reported on-balance sheet	121.0
Regulatory adjustments	–
Deductions from Additional Tier 1 Capital	–
Intangible assets (amount of reduction in Tier 1)	–
Shortfall of provisions to expected losses (amount of reduction in Tier 1)	–
Additional Tier 1 Capital	**121.0**
Tier 1 Capital	**1,747.0**
Subordinated liabilities	2.5
As reported on-balance sheet	19.5
Regulatory adjustments	– 17.0
Other (credit risk adjustments)	40.6
Deductions from Tier 2 Capital	–
Shortfall of provisions to expected losses (amount of reduction in Tier 1)	
Tier 2 Capital	**43.1**
Total regulatory equity capital	**1,790.1**

There were no material differences between the regulatory exposures and the book values recorded in the annual statement of accounts. For this reason, detailed accounting has not been prepared.

5 COUNTERPARTY RISK

5.1 Containment

Counterparty risk – also referred to as credit risk – is of major significance for MünchenerHyp. Counterparty risk describes the danger that a counterparty or group of counterparties may delay, make partial payments, or even default on repaying a loan to the lender. Migration risk is included as a credit risk. Migration risk is defined as the danger of loss in present value arising over the period of a loan due to a drop in ratings, which is normally accompanied by an implied increase in yield.

5.2 Strategies and Processes

Strategies and processes that are relevant for managing lending risks are documented in the business and risk strategies, as well as in the Credit Handbook. The business and risk strategies contain extensive explanations about the partial strategies concerning target customers and target markets, as well as requirements regarding the measurement and management of lending risks at the individual transaction and portfolio levels. The competencies and procedural requirements of entities involved in the lending business are contained in the Credit Handbook.

5.3 Risk Management Structure and Organisation

Credit risk management begins with selecting the target business for loan conditioning. Risk cost functions are used, which are validated in an ongoing back-testing process. Depending on the category and risk level of the business, various rating and scoring procedures are used. In addition, an IT-supported early warning system is used in order to recognise risks at an early stage.

The expected loss (EL) is taken into account within the framework of calculating the individual transaction by applying standard risk costs during the lending process. Based on the credit portfolio model, the unexpected loss (UL) is measured using a Credit-Value-at-Risk procedure (CVaR). The CVaR describes, with a certain level of probability, the maximum losses for a credit portfolio within a specific period. The UL is derived by subtracting the EL for the portfolio from this amount.

With respect to counterparty risks, MünchenerHyp calculates its positions according to the market valuation method. Compensation effects from correlation are not taken into account in this context.

5.4 Rating Systems and Customer Segments

MünchenerHyp uses specific customer-segment rating systems to evaluate creditworthiness. In this context, customers or claims are classified into segments (customer segments). The objective of this segmentation is to assign customers with homogeneous risk profiles to appropriate customer segments, which can in turn be assigned to exposure classes as defined by the supervisory authority. Rating systems appropriate to the risk profile are used to determine the rating class, and thus the risk level of positions in the various customer segments. This guarantees risk-appropriate and supervision-compliant allocation of claims to customer segments, rating systems and regulatory-related exposure classes. Customer segments and rating systems share the same names at MünchenerHyp in order to express the close relationship between customer segments and rating systems. Guidelines for customer segmentation and ratings application are established in the corresponding specialised instructions and implemented in the relevant data processing systems.

Rating systems consist of rating methods, processes and IT systems. A rating procedure processes all of the creditworthiness-related information about a borrower or a claim, using aspecific algorithm, and combines it into a creditworthiness evaluation (rating method). The processes relate to the work flows and management / monitoring procedures that are used in the rating system. The IT systems are based on the category and method of data delivery or data-related processing of creditworthiness-related information. In this context, MünchenerHyp makes a distinction between IRBA rating systems and non-IRBA rating systems. IRBA rating systems are rating systems that have received IRBA approval from the regulatory authorities. These rating systems are used to evaluate the creditworthiness of the IRBA exposure classes. Non-IRBA rating systems are systems for which no IRBA approval is intended because the ratings-related portfolio is less important for MünchenerHyp (permanent partial use – PPU). The exception to this is the Bank's resumed business activities in the USA, which should be included in the IRBA. These rating systems are used to evaluate the creditworthiness of the KSA exposure classes.

The probability of default (PD) is estimated on the basis of IRBA-compliant rating or scoring procedures for rating systems approved for IRBA use. In addition, there is also an internal loss given default (LGD) model in the rating systems for the retail business; the credit conversion factor (CCF) is quantified conservatively at 100%. Model change notices have currently been submitted to the supervisory authority for all of MünchenerHyp's IRBA models, which deal in particular with adjustments that were necessary due to the EBA's IRBA repair programme (e.g. new default definition, PD-LGD guidelines).

All retail business models are developed and/or revised by MünchenerHyp's Credit Risk Controlling department. MünchenerHyp uses external rating providers' procedures for rating systems used in its individual mortgage business: DZ HYP AG's SLRE procedure; the "Commercial Real Estate" procedure of CredaRate Solutions GmbH and, until the end of 2021, the bank rating of DZ BANK AG. The introduction of the procedures took place internally per resolution by the Board of Management. Changes to retail business models are made by the Credit Risk Controlling department. In the case of individual mortgage loan procedures, Credit Risk Controlling evaluates changes made by the rating provider. Methodological changes to the model are assessed by the validation function and the Bank's internal audit department is engaged if necessary. In conclusion, the changes are evaluated according to the guidelines of the "Model Change Policy" (MCP) and, depending on the category assigned, approved by the Head of Credit Risk Controlling or the Board of Management. The changes are also implemented in accordance with the MCP category; which may require a ruling by the supervisory authorities.

MünchenerHyp has implemented suitable control mechanisms for rating systems. A model development function and a validation function have been established in the Credit Risk Controlling department: Each employee in the department is permanently assigned to one of the two functions. This ensures independent validation of the models at the level of the persons involved.

The Internal Audit department is a separate unit within the organisational structure and conducts audits of the rating systems both on a regular basis and as required.

The control mechanisms operate as follows within the various stages of the rating systems: Model developments or revisions are carried out by the model development function and evaluated by the validation function. Decisions are made on a case-by-case basis to determine if an audit by the Internal Audit department is necessary. Model checks are conducted on an ongoing basis: The model development function as well as the performance of the rating procedures and the functionality of fundamental processes are analyzed as part of a quarterly report. The validation function evaluates all IRBA models in detail on the basis of qualitative and quantitative analyses at least once a year in accordance with a predefined schedule.

5.4.1 IRBA exposure classes

The rating systems or customer segments that have received IRBA approval are summarised in Table 12. This table also shows the associated IRBA exposure classes. These are the exposure classes used to determine the necessary equity capital pursuant to the supervisory authority's requirements on the basis of the approved rating systems. All IRBA procedures were revised as part of the EBA's IRBA repair programme. A decision by the supervisory authorities regarding the model changes is pending as of 31 December 2021.

TABLE 12: IRBA RATING SYSTEMS AND EXPOSURE CLASSES

Seq. no.	Customer segment / rating system	IRBA exposure classes
1.	Banks	Institutions
2.	Domestic property companies,	Corporates
3.	Property companies, foreign	Corporates
4.	Housing companies	Corporates
5.	Closed funds, domestic	Corporates
6.	Closed funds, foreign	Corporates
7.	Investors, domestic	Corporates
8.	Investors, foreign	Corporates
9.	Open funds (special assets), domestic	Corporates
10.	Open funds (special assets), foreign	Corporates
11.	Retail Business, domestic	Retail business
12.	Retail Business, SME	Retail business
13.	Retail Business PostFinance	Retail business
14.	Non-credit obligation assets	Other assets, without loan commitments

1. Banks
This customer segment comprises claims against banks and financial institutions that are not members of the protection scheme of the Federal Association of German Volksbanken and Raiffeisenbanken (BVR), or are not considered to be a multilateral development bank or a development bank for regulatory purposes.

The VR Rating Banks is used to evaluate the creditworthiness of claims in this segment. The VR Rating Banks was developed in the Cooperative Financial Network under the leadership of DZ BANK AG and was approved as an IRBA rating procedure. The ratings are provided to MünchenerHyp by the rating desk at DZ BANK AG. The provided ratings are subjected to a plausibility check by the analysts at MünchenerHyp and adjusted if necessary. This customer segment will be presented in the standardised approach for credit risk (KSA) as of 31 March 2022. Permission from the regulatory authorities has been obtained.

2. Domestic property companies
The customer segment of domestic property companies comprises special purpose companies that keep property in their portfolio and handle the long-term management of rented/leased properties. This customer segment includes contracts with property companies in the Federal Republic of Germany. The federal state in which the property is located is of relevance in this context.

The creditworthiness evaluation for claims in this segment is based on the VR Immo Rating. The VR Immo Rating was developed in the Cooperative Financial Network under the leadership of DZ HYP, and was approved as an IRBA rating procedure. The VR Immo Rating consists of various partial modules that are developed, implemented and validated independently in consideration of the special risk characteristics of the customer segments.
The latter is carried out both via internal validation activities at the Bank and using those of the procedure provider.

The VR Property Companies rating module (cash flow method) is used to evaluate the creditworthiness of claims in the domestic property companies segment.

3. Property companies, foreign
This customer segment is defined analogously to property companies, domestic. The difference is that properties in this segment are located outside of Germany.

The creditworthiness of claims in this segment is evaluated using the Rating Process for Commercial Real Estate developed by CredaRate Solutions GmbH. This rating process has been approved as an IRBA rating process and takes company and property-specific attributes into consideration.

Validation takes place using internal validation activities at the Bank and using those of the procedure provider.

4. Housing companies
This customer segment comprises claims against housing companies. These are companies that make available, manage and renovate residential housing for private individuals. Customers in this segment are usually housing construction companies, municipal housing companies and private housing companies.

The property must be located in the Federal Republic of Germany.

The creditworthiness evaluation for claims in this segment is based on the VR Immo Rating, using the VR Housing Companies module (cash flow method).

5. Closed funds, domestic
This segment comprises funds that were created to finance firmly defined, generally larger, investment projects. This customer segment encompasses investment properties or projects within the Federal Republic of Germany. The federal state in which the property is located is of relevance in this context.

The creditworthiness evaluation for claims in this segment is based on the VR Immo Rating, using the VR property companies module (cash flow method).

6. Closed funds, foreign
This customer segment is defined just like the afore-mentioned customer segment, except that the properties in this segment are located outside of Germany.

The creditworthiness evaluation for claims in this segment is based on the CredaRate rating process.

7. Investors, domestic
Investors are both natural and legal entities who invest in residential and commercial properties. Investors provide financial resources for their own investment properties; they do not build or develop properties for third parties. The financed properties in this customer segment must be located in the Federal Republic of Germany.

The creditworthiness evaluation for claims in this segment is based on the VR Immo Rating, using the VR Investors module.

8. Investors, foreign
This customer segment is defined just like “Investors, domestic”, except that the properties in this segment are located outside of Germany.

The creditworthiness evaluation for claims in this segment is based on the CredaRate rating process.

9. Open funds (special assets), domestic
This segment comprises classes of financing in which asset management companies take out loans for the account of special assets. The main property must be located in the Federal Republic of Germany.

The CredaRate rating process is used to evaluate the creditworthiness of claims in this segment.

10. Open funds (special assets), foreign
Professionally, the definition of international open funds corresponds to that of domestic open funds. However, the main property must be located outside the Federal Republic of Germany.

The CredaRate rating process is also used to evaluate the creditworthiness of claims in this segment.

11. Retail Business, domestic
The "Retail business, domestic" customer segment comprises claims against individual persons or private entities owning properties within the Federal Republic of Germany, up to a total maximum liability of € 1 million. Employees of MünchenerHyp are excluded from this segment.

The creditworthiness evaluation is based on an application score and a behavioural score. The scorecards were developed using regression methods on the basis of internal default time series, which in turn are based on the default definition pursuant to the CRR. The scorecards are validated qualitatively and quantitatively, the latter by means of Gini coefficient and a binomial test, among others. In this customer segment, loss rates are estimated internally in the event of default (Loss Given Default, LGD). The basis is internal loss data, which uses the economic loss concept in accordance with the CRR. The problem-solving methods available to MünchenerHyp play a decisive role here. The LGD model is validated qualitatively and quantitatively, the latter using a binomial test, t-tests and correlation values. The Credit Conversion Factor (CCF) is conservatively estimated at a default 100% for the required underlying equity.

12. Retail Business, SME
This customer segment comprises exposure to properties located within the Federal Republic of Germany that have the following characteristics of small and medium-sized enterprises (SMEs) up to a maximum total liability of € 1 million:

- Corporates (including commercial partnerships) with annual sales of € 50 million
- Economically independent private persons (self-employed professionals, business people, majority shareholders controlling up to 50% of the company shares)

Certain industries and legal forms are excluded. The creditworthiness evaluation is based on an application score and a behavioural score. These scores were calibrated using the specifics of the SME segment. In this customer segment, loss rates are estimated internally in the event of default (Loss Given Default, LGD). The methodical information on the customer segment "Retail business, domestic" applies here analogously. The Credit Conversion Factor (CCF) is conservatively estimated at a default 100% for the required equity.

13. Retail Business PostFinance
This segment contains all Retail business exposure arising from business generated by PostFinance. Claims in this segment are solely claims against properties located in Switzerland. In accordance with the limits placed on Retail Business transactions, claims against individual persons or private entities in this segment are limited to a total maximum liability of CHF 1.2 million.

The creditworthiness evaluation takes place based on a specific customer segment application score and a behavioural score. The methodology is based on the approach used in "Retail business, domestic" and takes into account the comparatively low number of default data records by means of suitable margins of conservatism. An internal method was developed for estimating the LGD, which is based on the model developed in the "Retail business, domestic" area of business and SME and appropriately takes into account the specific characteristics of the area of business. The Credit Conversion Factor (CCF) is conservatively set at a default 100% for the required equity.

14. Non-credit obligation assets
To the extent that non-credit obligation assets pose a counterparty risk to MünchenerHyp, these are allocated to the "other assets" IRBA exposure category. They include, for instance, fixed assets and prepayments counted as assets that cannot be allocated to a borrower. The risk is weighted in the same way as in the KSA.

The results of the various rating segments are standardised using the VR master scale and are thus comparable on a common basis. The VR master scale also serves to standardise the numerous rating systems used by the companies within the Cooperative Financial Network by way of a networkwide rating scale, thus creating a uniform standard for all of the rating systems used in the Cooperative Financial Network. This is an important factor that allows the use of the Rating Desk approach, among other things, within the Cooperative Financial Network. The VR master scale is shown in Table 13 in the context of the external ratings.

TABLE 13: VR MASTER SCALE AND KSA-RELEVANT EXTERNAL RATINGS

Rating class	Probability of default	S&P; Fitch	Moody's
0a	0.01%	AAA to AA	Aaa to Aa2
0b	0.02%	AA–	Aa3
0c	0.03%		
0d	0.04%	A+	A1
0e	0.05%		
1a	0.07%	A	A2
1b	0.10%	A–	A3
1c	0.15%	BBB+	Baa1
1d	0.23%	BBB	Baa2
1e	0.35%		
2a	0.50%	BBB–	Baa3
2b	0.75%	BB+	Ba1
2c	1.10%	BB	Ba2
2d	1.70%	BB–	Ba3
2e	2.60%	BB–	Ba3
3a	4.00%	B+	B1
3b	6.00%	B	B2
3c	9.00%	B–	B3
3d	13.50%		
3e	30.00%	CCC+ bis C	Caa1 bis C
4a	100.00%		D
4b	100.00%		D
4c	100.00%		D
4d	100.00%		D
4e	100.00%		D

Processes and IT systems relevant for rating purposes are constructed in a rating system-specific manner and fully comply with regulatory requirements. In this context, there is a strict separation for all of the rating systems between the areas of market, transaction management and counterparty risk monitoring. The rating systems are validated by the Credit Risk Controlling department and are thereby monitored by a department that operates independently and is not involved in initiating and closing business transactions. In regard to the validation of rating systems, a distinction is made between a pool validation, which is a rating process applied on a shared basis with other institutions and takes place in part centrally at the rating providers, the VR Immo Rating, the VR-Rating Banks and at CredaRate, and a MünchenerHyp-specific validation. In addition to validating the rating procedure, the validation process also examines the procedural and IT-related application of the rating systems at MünchenerHyp.

In addition to using the results from the rating systems as the foundation for determining regulatory requirements for underlying equity capital, they are also used as a basis for risk-adjusted pricing. The use of the rating results as a basis for determining the standard risk costs or equity costs is dependent upon the rating system. However, it is unrelated to the IRBA approval of the rating systems. Non-IRBA rating systems are thus also used for this purpose.

Tables 14A to 14G below present the most important parameters used to calculate own funds requirements for IRB rating systems. Exposure classes are shown by PD to allow an evaluation of the credit quality of the portfolio. Using the IRB approach, there were no risk weightings for an unexpected loss of IRBA exposures in default. In this case, risk backing takes place by comparing the expected loss to provisions made for adjustments to value. For this reason, no average risk weighting is shown for these exposures in the following tables.

In the interest of greater clarity and understanding, the various exposure classes are presented in individual tables. They are followed by an overview of all classes in Table 14G.

The exposure values are shown as the sum of the outstanding credit amounts and non-utilised credit approvals, as well as the average risk weight for these exposures. The factors established by the supervisory authority for this exposure category are used as conversion factors. Non-credit obligation assets and securitisations, are not shown in Tables 14A to 14G.

The standardised approach is applied for exposure to central governments and investments without exception.

Exposures arising from derivatives, security financing transactions (SFT), etc. are reviewed in the CCR framework, which is why they are not presented here.

MünchenerHyp only maintains the subportfolio of claims secured by mortgage liens in the IRBA Retail Business. These positions are divided into the significant Expected Loss bands for MünchenerHyp as shown in Tables 14 D and E. The tables disclose the exposure value, the exposure value weighted by the average risk weight, and the average loss rate in the event of default weighted with the exposure value. The IRBA exposure is the product of the IRBA risk exposure value and the IRBA conversion factor. In Retail Business, the conversion factor is uniformly set at 100% as a conservative default.

TABLE 14A: EU CR6 – IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – INSTITUTIONS

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	191.2	–	–	191.2	0.07	12	28.17	2.5	43.4	0.23	0.0	0.0
0020	0.00 to < 0.10	129.6	–	–	129.6	0.05	9	20.16	2.5	17.2	0.13	0.0	0.0
0030	0.10 to < 0.15	61.6	–	–	61.6	0.10	3	45.00	2.5	26.2	0.42	0.0	–
0040	0.15 to < 0.25	26.0	–	–	26.0	0.15	1	11.25	2.5	3.5	0.13	0.0	–
0050	0.25 to < 0.50	–	–	–	–	–	–	–	–	–	–	–	–
0060	0.50 to < 0.75	75.6	–	–	75.6	0.50	1	45.00	2.5	55.8	0.74	0.2	0.3
0070	0.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0080	0.75 to < 1.75	–	–	–	–	–	–	–	–	–	–	–	–
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	–	–	–	–	–	–	–	–	–	–	–	–
0110	2.50 to < 5.00	–	–	–	–	–	–	–	–	–	–	–	–
0120	5.00 to < 10.00	–	–	–	–	–	–	–	–	–	–	–	–
0130	10.00 to < 100.00	–	–	–	–	–	–	–	–	–	–	–	–
0140	10.00 to < 20.00	–	–	–	–	–	–	–	–	–	–	–	–
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	–	–	–	–	–	–	–	–	–	–	–	–
0170	100.00 (default)	–	–	–	–	–	–	–	–	–	–	–	–
0180	**Total**	**292.9**			**292.9**	**0.19**	**14**	**31.01**	**2.5**	**102.6**	**0.35**	**0.2**	**0.3**

TABLE 14B: EU CR6 – IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – SME COMPANIES

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	937.3	62.3	75.00	984.0	0.09	154	35.64	2.5	154.6	0.16	0.3	0.6
0020	0.00 to < 0.10	309.1	33.1	75.00	333.9	0.06	93	35.23	2.5	38.9	0.12	0.1	0.1
0030	0.10 to < 0.15	628.2	29.1	75.00	650.1	0.10	61	35.85	2.5	115.8	0.18	0.2	0.5
0040	0.15 to < 0.25	1,261.0	81.0	75.00	1,321.8	0.19	146	36.54	2.5	334.8	0.25	0.9	1.7
0050	0.25 to < 0.50	176.7	24.7	75.00	195.2	0.35	59	36.17	2.5	63.4	0.32	0.2	0.4
0060	0.50 to < 0.75	242.2	7.4	75.00	247.7	0.50	58	37.69	2.5	102.7	0.41	0.5	0.9
0070	0.75 to < 2.50	147.6	8.5	75.00	153.9	1.13	59	35.99	2.5	79.8	0.52	0.6	0.9
0080	0.75 to < 1.75	147.6	8.5	75.00	153.9	1.13	59	35.99	2.5	79.8	0.52	0.6	0.9
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	16.1	–	–	16.1	4.06	6	35.18	2.5	10.9	0.68	0.2	0.2
0110	2.50 to < 5.00	14.0	–	–	14.0	3.32	5	35.21	2.5	9.1	0.65	0.2	0.2
0120	5.00 to < 10.00	2.1	–	–	2.1	9.00	1	35.00	2.5	1.9	0.88	0.1	0.0
0130	10.00 to < 100.00	13.9	–	–	13.9	26.21	6	35.46	2.5	17.2	1.24	1.3	0.0
0140	10.00 to < 20.00	3.2	–	–	3.2	13.50	1	35.00	2.5	3.3	1.04	0.2	0.0
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	10.7	–	–	10.7	30.00	5	35.60	2.5	13.9	1.30	1.1	0.0
0170	100.00 (default)	24.7	–	–	24.7	100.00	4	40.96	2.5	–	–	10.1	12.9
0180	**Total**	**2,819.5**	**183.7**	**75.00**	**2,957.3**	**1.21**	**492**	**36.31**	**2.5**	**763.5**	**0.26**	**14.2**	**17.7**

TABLE 14C: EU CR6 – IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – OTHER COMPANIES

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	1,167.6	58.2	75.00	1,211.2	0.07	64	35.52	2.5	247.2	0.20	0.31	0.62
0020	0.00 to < 0.10	788.1	38.2	75.00	816.7	0.06	45	35.45	2.5	148.8	0.18	0.17	0.34
0030	0.10 to < 0.15	379.6	20.0	75.00	394.6	0.10	19	35.68	2.5	98.3	0.25	0.14	0.27
0040	0.15 to < 0.25	545.6	2.4	75.00	547.4	0.18	39	35.45	2.5	186.2	0.34	0.34	0.69
0050	0.25 to < 0.50	173.8	1.4	75.00	174.9	0.35	9	37.54	2.5	90.9	0.52	0.23	0.44
0060	0.50 to < 0.75	70.1	21.7	75.00	86.4	0.50	9	38.95	2.5	55.2	0.64	0.17	0.27
0070	0.75 to < 2.50	42.3	2.5	75.00	44.1	1.08	9	36.69	2.5	36.0	0.82	0.17	0.32
0080	0.75 to < 1.75	42.3	2.5	75.00	44.1	1.08	9	36.69	2.5	36.0	0.82	0.17	0.32
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	–	–	–	–	–	–	–	–	–	–	–	–
0110	2.50 to < 5.00	–	–	–	–	–	–	–	–	–	–	–	–
0120	5.00 to < 10.00	–	–	–	–	–	–	–	–	–	–	–	–
0130	10.00 to < 100.00	0.6	–	–	0.6	30.00	1	35.00	2.5	1.2	2.05	0.06	0.00
0140	10.00 to < 20.00	–	–	–	–	–	–	–	–	–	–	–	–
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	0.6	–	–	0.6	30.00	1	35.00	2.5	1.2	2.05	0.06	0.00
0170	100.00 (default)	–	–	–	–	–	–	–	–	–	–	–	–
0180	**Total**	**2,000.0**	**86.1**	**75.00**	**2,064.6**	**0.17**	**131**	**35.84**	**2.5**	**616.6**	**0.30**	**1.29**	**2.33**

TABLE 14D: EU CR6 – IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – SPECIALISED LENDING

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	3,846.3	298.0	75.00	4,069.8	0.06	170	37.45	2.5	510.3	0.13	0.9	1.7
0020	0.00 to < 0.10	2,955.7	271.9	75.00	3,159.7	0.05	126	37.54	2.5	351.7	0.11	0.6	1.0
0030	0.10 to < 0.15	890.5	26.1	75.00	910.1	0.10	44	37.13	2.5	158.6	0.17	0.3	0.6
0040	0.15 to < 0.25	1,869.1	280.9	75.00	2,079.7	0.20	94	38.52	2.5	561.1	0.27	1.6	2.6
0050	0.25 to < 0.50	760.4	88.2	75.00	792.2	0.35	44	38.98	2.5	287.5	0.36	1.1	1.9
0060	0.50 to < 0.75	448.2	34.5	75.00	474.1	0.50	28	37.88	2.5	195.2	0.41	0.9	1.6
0070	0.75 to < 2.50	155.5	11.8	75.00	164.3	0.82	20	38.15	2.5	83.0	0.51	0.5	0.9
0080	0.75 to < 1.75	155.5	11.8	75.00	164.3	0.82	20	38.15	2.5	83.0	0.51	0.5	0.9
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	59.2	–	–	59.2	3.92	4	37.92	2.5	46.4	0.78	0.9	1.7
0110	2.50 to < 5.00	59.2	–	–	59.2	3.92	4	37.92	2.5	46.4	0.78	0.9	1.7
0120	5.00 to < 10.00		–	–	–	–	–	–	–	–	–	–	–
0130	10.00 to < 100.00	70.9	–	–	70.9	18.16	6	41.95	2.5	103.0	1.45	5.4	8.7
0140	10.00 to < 20.00	50.9	–	–	50.9	13.50	3	42.41	2.5	70.3	1.38	2.9	4.5
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	20.0	–	–	20.0	30.00	3	40.77	2.5	32.6	1.63	2.4	4.1
0170	100.00 (default)	59.0	–	–	59.0	100.00	3	41.13	2.5	0.0	–	24.3	12.2
0180	**Total**	**7,268.5**	**713.3**	**75.00**	**7,769.1**	**1.12**	**369**	**38.01**	**2.5**	**1,786.3**	**0.23**	**35.5**	**31.3**

TABLE 14E: EU CR6 – A-IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – RETAIL SME

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	721.3	59.4	100.00	780.8	0.09	4,591	8.63	2.5	12.5	0.02	0.1	0.5
0020	0.00 to < 0.10	115.2	17.3	100.00	132.5	0.07	757	6.48	2.5	1.2	0.01	0.0	0.1
0030	0.10 to < 0.15	606.1	42.1	100.00	648.2	0.10	3,834	9.07	2.5	11.3	0.02	0.1	0.4
0040	0.15 to < 0.25	1,570.8	108.9	100.00	1,679.7	0.18	11,398	12.96	2.5	64.7	0.04	0.4	2.0
0050	0.25 to < 0.50	466.4	50.6	100.00	517.0	0.35	3,713	14.11	2.5	35.6	0.07	0.3	1.2
0060	0.50 to < 0.75	440.9	110.5	100.00	551.3	0.50	3,256	16.25	2.5	56.4	0.10	0.4	1.6
0070	0.75 to < 2.50	312.5	107.4	100.00	419.9	0.99	1,782	22.22	2.5	93.7	0.22	0.9	2.3
0080	0.75 to < 1.75	312.5	107.4	100.00	419.9	0.99	1,782	22.22	2.5	93.7	0.22	0.9	2.3
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	187.6	4.4	100.00	192.0	4.41	1,302	17.62	2.5	81.5	0.42	1.5	6.0
0110	2.50 to < 5.00	132.1	3.6	100.00	135.8	3.30	877	17.81	2.5	51.6	0.38	0.8	3.1
0120	5.00 to < 10.00	55.5	0.8	100.00	56.2	7.09	425	17.16	2.5	29.9	0.53	0.7	2.8
0130	10.00 to < 100.00	21.3	0.0	100.00	21.4	26.80	163	17.56	2.5	17.1	0.80	1.0	4.0
0140	10.00 to < 20.00	4.1	–	–	4.1	13.50	25	21.36	2.5	3.6	0.87	0.1	0.4
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	17.2	0.0	100.00	17.2	30.00	138	16.64	2.5	13.5	0.78	0.9	3.7
0170	100.00 (default)	24.7	1.2	100.00	25.9	100.00	192	10.93	2.5	82.6	3.19	2.8	1.7
0180	**Total**	**3,745.5**	**442.5**	**100.00**	**4,188.0**	**1.25**	**26,397**	**13.88**	**2.5**	**444.1**	**0.11**	**7.4**	**19.4**

TABLE 14F: EU CR6 – A-IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – RETAIL

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	17,023.6	2,745.1	100.00	19,768.7	0.07	155,276	14.48	2.5	568.1	0.03	2.1	8.6
0020	0.00 to < 0.10	11,468.1	1,905.4	100.00	13,373.5	0.05	108,191	12.26	2.5	260.2	0.02	0.9	4.6
0030	0.10 to < 0.15	5,555.5	839.7	100.00	6,395.2	0.10	47,085	19.12	2.5	307.9	0.05	1.2	4.0
0040	0.15 to < 0.25	5,544.9	628.2	100.00	6,173.1	0.18	46,934	22.56	2.5	545.8	0.09	2.5	7.1
0050	0.25 to < 0.50	1,045.9	147.2	100.00	1,193.1	0.35	9,881	24.46	2.5	187.0	0.16	1.0	2.7
0060	0.50 to < 0.75	296.0	32.1	100.00	328.1	0.50	3,006	25.62	2.5	69.5	0.21	0.4	1.1
0070	0.75 to < 2.50	271.3	25.7	100.00	297.0	0.91	2,584	27.90	2.5	102.1	0.34	0.8	1.8
0080	0.75 to < 1.75	271.3	25.7	100.00	297.0	0.91	2,584	27.90	2.5	102.1	0.34	0.8	1.8
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	587.9	9.1	100.00	597.0	5.27	4,615	18.07	2.5	389.0	0.65	6.1	22.2
0110	2.50 to < 5.00	297.3	5.3	100.00	302.6	3.59	2,096	14.83	2.5	130.4	0.43	1.6	7.6
0120	5.00 to < 10.00	290.6	3.8	100.00	294.4	7.00	2,519	21.41	2.5	258.7	0.88	4.4	14.6
0130	10.00 to < 100.00	38.6	0.5	100.00	39.1	13.65	369	25.31	2.5	53.3	1.36	1.4	3.4
0140	10.00 to < 20.00	38.2	0.5	100.00	38.7	13.50	367	25.25	2.5	52.6	1.36	1.3	3.4
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	0.4	–	–	0.4	30.00	2	32.09	2.5	0.7	1.99	0.0	0.0
0170	100.00 (default)	75.7	1.0	100.00	76.7	100.00	663	15.89	2.5	254.2	3.32	12.2	7.4
0180	**Total**	**24,883.9**	**3,588.9**	**100.00**	**28,472.8**	**0.52**	**223,328**	**17.01**	**2.5**	**2,168.9**	**0.08**	**26.4**	**54.4**

TABLE 14G: EU CR6 – IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – OVERVIEW

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	6,142.4	418.4	75.00	6,456.3	0.06	400	36.51	2.5	955.5	0.15	1.6	2.9
0020	0.00 to < 0.10	4,182.5	343.2	75.00	4,439.9	0.05	273	36.47	2.5	556.6	0.13	0.8	1.5
0030	0.10 to < 0.15	1,960.0	75.2	75.00	2,016.4	0.10	127	36.67	2.5	398.9	0.20	0.7	1.4
0040	0.15 to < 0.25	3,701.8	364.2	75.00	3,974.9	0.19	280	37.26	2.5	1,085.5	0.27	2.8	5.0
0050	0.25 to < 0.50	1,110.9	114.2	75.00	1,162.2	0.35	112	38.29	2.5	441.8	0.38	1.6	2.8
0060	0.50 to < 0.75	836.1	63.5	75.00	883.8	0.50	96	38.54	2.5	408.8	0.46	1.7	3.0
0070	0.75 to < 2.50	345.3	22.8	75.00	362.4	0.98	88	37.05	2.5	198.8	0.55	1.3	2.1
0080	0.75 to < 1.75	345.3	22.8	75.00	362.4	0.98	88	37.05	2.5	198.8	0.55	1.3	2.1
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	75.3	–	–	75.3	3.96	10	37.33	2.5	57.3	0.76	1.1	1.9
0110	2.50 to < 5.00	73.2	–	–	73.2	3.81	9	37.40	2.5	55.5	0.76	1.0	1.9
0120	5.00 to < 10.00	2.1	–	–	2.1	9.00	1	35.00	2.5	1.9	0.88	0.1	0.0
0130	10.00 to < 100.00	85.4	–	–	85.4	19.55	13	40.84	2.5	121.4	1.42	6.7	8.7
0140	10.00 to < 20.00	54.1	–	–	54.1	13.50	4	41.97	2.5	73.7	1.36	3.1	4.6
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	31.3	–	–	31.3	30.00	9	38.89	2.5	47.7	1.52	3.7	4.2
0170	100.00 (default)	83.6	–	–	83.6	100.00	7	41.08	2.5	–	0.0	34.4	25.1
0180	**Total**	**12,380.9**	**983.1**	**75.00**	**13,083.9**	**0.97**	**1,006**	**37.44**	**2.5**	**3,269.1**	**0.25**	**51.2**	**51.6**

TABLE 14H: EU CR6 – A-IRB APPROACH – CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE – OVERVIEW

	a	b	c	d	e	f	g	h	i	j	k	l	m
	PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
0010	0.00 to < 0.15	17,744.9	2,804.5	100.00	20,549.4	0.07	159,867	14.09	2.5	580.6	0.03	2.2	9.1
0020	0.00 to < 0.10	11,583.3	1,922.7	100.00	13,506.0	0.05	108,948	12.20	2.5	261.4	0.02	0.9	4.6
0030	0.10 to < 0.15	6,161.6	881.8	100.00	7,043.5	0.10	50,919	18.20	2.5	319.1	0.05	1.3	4.5
0040	0.15 to < 0.25	7,115.7	737.1	100.00	7,852.8	0.18	58,332	20.51	2.5	610.5	0.08	2.9	9.1
0050	0.25 to < 0.50	1,512.3	197.9	100.00	1,710.1	0.35	13,594	21.33	2.5	222.7	0.13	1.3	3.9
0060	0.50 to < 0.75	736.9	142.5	100.00	879.4	0.50	6,262	19.75	2.5	125.9	0.14	0.9	2.7
0070	0.75 to < 2.50	583.8	133.2	100.00	717.0	0.96	4,366	24.57	2.5	195.8	0.27	1.7	4.1
0080	0.75 to < 1.75	583.8	133.2	100.00	717.0	0.96	4,366	24.57	2.5	195.8	0.27	1.7	4.1
0090	1.75 to < 2.50	–	–	–	–	–	–	–	–	–	–	–	–
0100	2.50 to < 10.00	775.5	13.5	100.00	789.0	5.06	5,917	17.96	2.5	470.5	0.60	7.5	28.2
0110	2.50 to < 5.00	429.4	9.0	100.00	438.4	3.50	2,973	15.75	2.5	181.9	0.42	2.4	10.8
0120	5.00 to < 10.00	346.1	4.5	100.00	350.6	7.01	2,944	20.73	2.5	288.6	0.82	5.1	17.4
0130	10.00 to < 100.00	59.9	0.5	100.00	60.4	18.29	532	22.57	2.5	70.4	1.16	2.3	7.5
0140	10.00 to < 20.00	42.4	0.5	100.00	42.9	13.50	392	24.87	2.5	56.2	1.31	1.4	3.8
0150	20.00 to < 30.00	–	–	–	–	–	–	–	–	–	–	–	–
0160	30.00 to < 100.00	17.5	0.0	100.00	17.6	30.00	140	16.95	2.5	14.2	0.81	0.9	3.7
0170	100.00 (default)	100.4	2.2	100.00	102.6	100.00	855	14.64	2.5	336.8	3.28	15.0	9.2
0180	**Total**	**28,629.4**	**4,031.4**	**100.00**	**32,660.8**	**0.61**	**249,725**	**16.61**	**2.5**	**2,613.0**	**0.08**	**33.8**	**73.8**

No material fluctuations occurred in the RWA reported in the IRBA portfolios in 2021. Changes were primarily due to inflows and outflows.

TABLE 15: EU CR7-A – A-IRB APPROACH – DISCLOSURE OF THE EXTENT OF THE USE OF CRM TECHNIQUES

PART 1 OF 2

			a	b	c	d	e	f	g
				Credit risk Mitigation techniques					
				Funded credit Protection (FCP)					
			Total exposures	Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)	Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)	Part of exposures covered by Other funded credit protection (%)
0010	1	Central governments and central banks	–	–	–	–	–	–	–
0020	2	Institutions	–	–	–	–	–	–	–
0030	3	Corporates	–	–	–	–	–	–	–
0040	3,1	Of which Corporates – SMEs	–	–	–	–	–	–	–
0050	3,2	Of which Corporates – Specialised lending	–	–	–	–	–	–	–
0060	3,3	Of which Corporates – Other	–	–	–	–	–	–	–
0070	4	Retail	32,660.8	–	100.00	100.00	–	–	–
0080	4,1	Of which Retail – Immovable property SMEs	4,188.0	–	100.00	100.00	–	–	–
0090	4,2	Of which Retail – Immovable property non-SMEs	28,472.8	–	100.00	100.00	–	–	–
0100	4,3	Of which Retail – Qualifying revolving	–	–	–	–	–	–	–
0110	4,4	Of which Retail – Other SMEs	–	–	–	–	–	–	–
0120	4,5	Of which Retail – Other non-SMEs	–	–	–	–	–	–	–
0130	**5**	**Total**	**32,660.8**	**–**	**100.00**	**100.00**	**–**	**–**	**–**

Table 15, Part 1 continued on page 45

Table 15, Part 1 continued from page 44

TABLE 15: EU CR7-A – A-IRB APPROACH – DISCLOSURE OF THE EXTENT OF THE USE OF CRM TECHNIQUES

PART 1 OF 2

			h	i	j	k	l	m	n
			Credit risk Mitigation techniques					Credit risk Mitigation methods in the calculation of RWEAs	
			Funded credit Protection (FCP)			Unfunded credit Protection (UFCP)			
			Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWEA without substitution effects (reduction effects only)	RWEA with substitution effects (both reduction and substitution effects)
0010	1	Central governments and central banks	–	–	–	–	–	–	–
0020	2	Institutions	–	–	–	–	–	–	–
0030	3	Corporates	–	–	–	–	–	–	–
0040	3,1	Of which Corporates – SMEs	–	–	–	–	–	–	–
0050	3,2	Of which Corporates – Specialised lending	–	–	–	–	–	–	–
0060	3,3	Of which Corporates – Other	–	–	–	–	–	–	–
0070	4	Retail	–	–	–	–	–	–	2,613.0
0080	4,1	Of which Retail – Immovable property SMEs	–	–	–	–	–	–	444.1
0090	4,2	Of which Retail – Immovable property non-SMEs	–	–	–	–	–	–	2,168.9
0100	4,3	Of which Retail – Qualifying revolving	–	–	–	–	–	–	–
0110	4,4	Of which Retail – Other SMEs	–	–	–	–	–	–	–
0120	4,5	Of which Retail – Other non-SMEs	–	–	–	–	–	–	–
0130	**5**	**Total**	**–**	**–**	**–**	**–**	**–**	**–**	**2,613.0**

TABLE 15: EU CR7-A – IRB APPROACH – DISCLOSURE OF THE EXTENT OF THE USE OF CRM TECHNIQUES

PART 2 OF 2

			a	b	c	d	e	f	g
				Credit risk Mitigation techniques					
				Funded credit Protection (FCP)					
			Total exposures	Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)	Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)	Part of exposures covered by Other funded credit protection (%)
0140	1	Central governments and central banks	–	–	–	–	–	–	–
0150	2	Institutions	292.9	–	–	–	–	–	–
0160	3	Corporates	12,791.0	–	78.07	78.07	–	–	–
0170	3,1	Of which Corporates – SMEs	2,957.3	–	87.56	87.56	–	–	–
0180	3,2	Of which Corporates – Specialised lending	7,769.1	–	70.71	70.71	–	–	–
0190	3,3	Of which Corporates – Other	2,064.6	–	92.19	92.19	–	–	–
0200	**4**	**Total**	**13,083.9**	**–**	**76.32**	**76.32**	**–**	**–**	**–**

Table 15, Part 2 continued on page 47

Table 15, Part 2 continued from page 46

TABLE 15: EU CR7-A – IRB APPROACH – DISCLOSURE OF THE EXTENT OF THE USE OF CRM TECHNIQUES

PART 2 OF 2

			h	i	j	k	l	m	n
			Credit risk Mitigation techniques					Credit risk Mitigation methods in the calculation of RWEAs	
			Funded credit Protection (FCP)			Unfunded credit Protection (UFCP)			
			Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWEA without substitution effects (reduction effects only)	RWEA with substitution effects (both reduction and substitution effects)
0140	1	Central governments and central banks	–	–	–	–	–	–	–
0150	2	Institutions	–	–	–		–	–	102.6
0160	3	Corporates	–	–	–	0.27	–	–	3,166.4
0170	3,1	Of which Corporates – SMEs	–	–	–	–	–	–	763.5
0180	3,2	Of which Corporates – Specialised lending	–	–	–	0.44	–	–	1,786.3
0190	3,3	Of which Corporates – Other	–	–	–	–	–	–	616.6
0200	**4**	**Total**	**–**	**–**	**–**	**0.26**	**–**	**–**	**3,269.1**

TABLE 16: EU CR8 – RWEA-FLOW STATEMENTS OF CREDIT RISK EXPOSURES UNDER THE IRB APPROACH

			a
			Risk weighted exposure amount
0010	1	Risk weighted exposure amount as at the end of the previous reporting period*	5,813.7
0020	2	Asset size (+/–)	154.1
0030	3	Asset quality (+/–)	27.8
0040	4	Model updates (+/–)	–
0050	5	Methodology and policy (+/–)	–
0060	6	Acquisitions and disposals (+/–)	–
0070	7	Foreign exchange movements (+/–)	26.8
0080	8	Other (+/–)	–
0090	**9**	**Risk weighted exposure amount as at the end of the reporting period**	**6,022.4**

* In accordance with Article 438 (h) CRR, the table EU CR8 shows the changes in RWA from September 30, 2021 to December 31, 2021 for IRBA credit risk.

TABLE 17A: EU CR9 – IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – INSTITUTIONS

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Foundation IRB Institutions	0.00 to < 0.15	12	–	–	0.07	0.06	–
0020		0.00 to < 0.10	10	–	–	0.05	0.06	–
0030		0.10 to < 0.15	2	–	–	0.10	0.10	–
0040		0.15 to < 0.25	2	–	–	0.15	0.19	–
0050		0.25 to < 0.50	–	–	–	–	–	–
0060		0.50 to < 0.75	–	–	–	–	–	–
0070		0.75 to < 2.50	1	–	–	0.75	0.75	–
0080		0.75 to < 1.75	1	–	–	0.75	0.75	–
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	–	–	–	–	–	–
0110		2.50 to < 5.00	–	–	–	–	–	–
0120		5.00 to < 10.00	–	–	–	–	–	–
0130		10.00 to < 100.00	–	–	–	–	–	–
0140		10.00 to < 20.00	–	–	–	–	–	–
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	–	–	–	–	–	–
0170		100.00 (default)	–	–	–	–	–	–

TABLE 17B: EU CR9 – IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – COMPANIES SME

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Foundation IRB Corporates SME	0.00 to < 0.15	317	–	–	0.09	0.07	–
0020		0.00 to < 0.10	209	–	–	0.06	0.05	–
0030		0.10 to < 0.15	108	–	–	0.10	0.10	–
0040		0.15 to < 0.25	216	–	–	0.19	0.18	0.19
0050		0.25 to < 0.50	102	1	0.98	0.35	0.35	0.45
0060		0.50 to < 0.75	78	–	–	0.50	0.50	–
0070		0.75 to < 2.50	68	–	–	1.13	0.87	2.07
0080		0.75 to < 1.75	68	–	–	1.13	0.87	2.07
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	13	1	7.69	4.06	3.66	6.21
0110		2.50 to < 5.00	11	1	9.09	3.32	3.24	1.82
0120		5.00 to < 10.00	2	–	–	9.00	6.00	15.00
0130		10.00 to < 100.00	5	1	20.00	26.21	23.40	4.00
0140		10.00 to < 20.00	2	–	–	13.50	13.50	–
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	3	1	33.33	30.00	30.00	6.67
0170		100.00 (default)	5	–	–	100.00	100.00	–

TABLE 17C: EU CR9 – IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – OTHER COMPANIES

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Foundation IRB Other corporates	0.00 to < 0.15	70	–	–	0.07	0.07	–
0020		0.00 to < 0.10	49	–	–	0.06	0.06	–
0030		0.10 to < 0.15	21	–	–	0.10	0.10	–
0040		0.15 to < 0.25	38	–	–	0.18	0.19	–
0050		0.25 to < 0.50	8	–	–	0.35	0.35	–
0060		0.50 to < 0.75	6	–	–	0.50	0.50	–
0070		0.75 to < 2.50	7	–	–	1.08	0.85	–
0080		0.75 to < 1.75	7	–	–	1.08	0.85	–
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	–	–	–	–	–	–
0110		2.50 to < 5.00	–	–	–	–	–	–
0120		5.00 to < 10.00	–	–	–	–	–	–
0130		10.00 to < 100.00	2	–	–	30.00	30.00	–
0140		10.00 to < 20.00	–	–	–	–	–	–
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	2	–	–	30.00	30.00	–
0170		100.00 (default)		–	–	–	–	–

TABLE 17D: EU CR9 – IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – SPECIALIZED LENDING

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Foundation IRB specialised lending exposures	0.00 to < 0.15	14	–	–	0.06	0.07	–
0020		0.00 to < 0.10	8	–	–	0.05	0.04	–
0030		0.10 to < 0.15	6	–	–	0.10	0.10	–
0040		0.15 to < 0.25	10	–	–	0.20	0.17	–
0050		0.25 to < 0.50	–	–	–	–	–	–
0060		0.50 to < 0.75	–	–	–	–	–	–
0070		0.75 to < 2.50	1	–	–	0.82	0.75	–
0080		0.75 to < 1.75	1	–	–	0.82	0.75	–
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	–	–	–	–	–	–
0110		2.50 to < 5.00	–	–	–	–	–	–
0120		5.00 to < 10.00	–	–	–	–	–	–
0130		10.00 to < 100.00	–	–	–	–	–	–
0140		10.00 to < 20.00	–	–	–	–	–	–
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	–	–	–	–	–	–
0170		100.00 (default)	–	–	–	–	–	–

TABLE 17E: EU CR9 – IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – TOTAL

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Founda-tion IRB Total	0.00 to < 0.15	413	–	–	0.06	0.07	–
0020		0.00 to < 0.10	276	–	–	0.05	0.05	–
0030		0.10 to < 0.15	137	–	–	0.10	0.10	–
0040		0.15 to < 0.25	266	–	–	0.19	0.18	0.16
0050		0.25 to < 0.50	110	1	0.91	0.35	0.35	0.39
0060		0.50 to < 0.75	84	–	–	0.50	0.50	–
0070		0.75 to < 2.50	77	–	–	0.98	0.87	1.81
0080		0.75 to < 1.75	77	–	–	0.98	0.87	1.81
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	13	1	7.69	3.96	3.66	5.58
0110		2.50 to < 5.00	11	1	9.09	3.81	3.24	1.82
0120		5.00 to < 10.00	2	–	–	9.00	6.00	15.00
0130		10.00 to < 100.00	7	1	14.29	19.55	25.29	2.86
0140		10.00 to < 20.00	2	–	–	13.50	13.50	–
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	5	1	20.00	30.00	30.00	4.00
0170		100.00 (default)	5	–	–	100.00	100.00	–

TABLE 17F: EU CR9 – A-IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – RETAIL BUSINESS

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Advanced-IRB Retail – non-SME	0.00 to < 0.15	4,526	2	0.04	0.09	0.09	0.09
0020		0.00 to < 0.10	712	–	–	0.07	0.07	0.08
0030		0.10 to < 0.15	3,814	2	0.05	0.10	0.10	0.09
0040		0.15 to < 0.25	10,979	7	0.06	0.18	0.18	0.10
0050		0.25 to < 0.50	3,540	6	0.17	0.35	0.35	0.23
0060		0.50 to < 0.75	3,105	7	0.23	0.50	0.50	0.37
0070		0.75 to < 2.50	1,794	7	0.39	0.99	0.94	0.49
0080		0.75 to < 1.75	1,794	7	0.39	0.99	0.94	0.49
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	1,500	34	2.27	4.41	4.60	2.20
0110		2.50 to < 5.00	998	16	1.60	3.30	3.40	1.14
0120		5.00 to < 10.00	502	18	3.59	7.09	6.98	2.87
0130		10.00 to < 100.00	170	19	11.18	26.80	28.06	11.57
0140		10.00 to < 20.00	20	2	10.00	13.50	13.50	4.70
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	150	17	11.33	30.00	30.00	11.91
0170		100.00 (default)	197	–	–	100.00	100.00	–

TABLE 17G: EU CR9 – A-IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – RETAIL BUSINESS SME

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Advanced-IRB Retail – non-SME	0.00 to < 0.15	151,728	68	0.04	0.07	0.07	0.05
0020		0.00 to < 0.10	105,293	41	0.04	0.05	0.05	0.05
0030		0.10 to < 0.15	46,435	27	0.06	0.10	0.10	0.07
0040		0.15 to < 0.25	44,037	49	0.11	0.18	0.18	0.13
0050		0.25 to < 0.50	8,869	21	0.24	0.35	0.35	0.21
0060		0.50 to < 0.75	2,834	11	0.39	0.50	0.50	0.34
0070		0.75 to < 2.50	2,509	12	0.48	0.91	0.87	0.42
0080		0.75 to < 1.75	2,509	12	0.48	0.91	0.87	0.42
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	4,812	139	2.89	5.27	5.45	3.15
0110		2.50 to < 5.00	2,174	39	1.79	3.59	3.59	1.93
0120		5.00 to < 10.00	2,638	100	3.79	7.00	6.98	4.06
0130		10.00 to < 100.00	320	14	4.38	13.65	13.71	5.38
0140		10.00 to < 20.00	316	14	4.43	13.50	13.50	5.47
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	4	–	–	30.00	30.00	–
0170		100.00 (default)	682	–	–	100.00	100.00	–

TABLE 17H: EU CR9 – A-IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (FIXED PD SCALE) – TOTAL

	a	b	c	d	e	f	g	h
			Number of obligors in the end of previous year					
	Exposure class	PD range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposure weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0010	Advanced-IRB Total	0.00 to < 0.15	156,254	70	0.04	0.07	0.07	0.05
0020		0.00 to < 0.10	106,005	41	0.04	0.05	0.05	0.05
0030		0.10 to < 0.15	50,249	29	0.06	0.10	0.10	0.07
0040		0.15 to < 0.25	55,016	56	0.10	0.18	0.18	0.13
0050		0.25 to < 0.50	12,409	27	0.22	0.35	0.35	0.22
0060		0.50 to < 0.75	5,939	18	0.30	0.50	0.50	0.36
0070		0.75 to < 2.50	4,303	19	0.44	0.96	0.90	0.46
0080		0.75 to < 1.75	4,303	19	0.44	0.96	0.90	0.46
0090		1.75 to < 2.50	–	–	–	–	–	–
0100		2.50 to < 10.00	6,312	173	2.74	5.06	5.25	2.92
0110		2.50 to < 5.00	3,172	55	1.73	3.50	3.53	1.76
0120		5.00 to < 10.00	3,140	118	3.76	7.01	6.98	3.88
0130		10.00 to < 100.00	490	33	6.73	18.29	18.69	7.22
0140		10.00 to < 20.00	336	16	4.76	13.50	13.50	5.37
0150		20.00 to < 30.00	–	–	–	–	–	–
0160		30.00 to < 100.00	154	17	11.04	30.00	30.00	11.24
0170		100.00 (default)	879	–	–	100.00	100.00	–

TABLE 18: EU CR9.1 – IRB APPROACH – BACK-TESTING OF PD PER EXPOSURE CLASS (ONLY FOR PD ESTIMATES ACCORDING TO POINT (F) OF ARTICLE 180 (1) CRR)

	a	b	c	d	e	f	g	h	i
					Number of obligors at the end of previous year				
	Exposure class	PD range	External Credit Assessment Institution (ECAI)	External rating equivalent		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
010	Institutions (Foundation-IRB)	≥0.0000% and <0.0165%	Moody's	Aa2	–	–	–	0.01	–
020	Institutions (Foundation-IRB)	≥0.0165% and <0.0248%	Moody's	Aa3	–	–	–	0.02	–
030	Institutions (Foundation-IRB)	≥0.0248% and <0.0331%	Moody's	A1	–	–	–	0.03	–
040	Institutions (Foundation-IRB)	≥0.0331% and <0.0414%	Moody's	A1	2	–	–	0.04	–
050	Institutions (Foundation-IRB)	≥0.0414% and <0.0580%	Moody's	A2	–	–	–	0.05	–
060	Institutions (Foundation-IRB)	≥0.0580% and <0.0829%	Moody's	A2	3	–	–	0.07	–
070	Institutions (Foundation-IRB)	≥0.0829% and <0.1243%	Moody's	A3	5	–	–	0.10	–
080	Institutions (Foundation-IRB)	≥0.1243% and <0.1865%	Moody's	Baa1	2	–	–	0.15	–
090	Institutions (Foundation-IRB)	≥0.1865% and <0.2797%	Moody's	Baa2	1	–	–	0.23	–
100	Institutions (Foundation-IRB)	≥0.2797% and <0.4195%	Moody's	Baa2	1	–	–	0.35	–
110	Institutions (Foundation-IRB)	≥0.4195% and <0.6293%	Moody's	Baa3	–	–	–	0.50	–
120	Institutions (Foundation-IRB)	≥0.6293% and <0.9440%	Moody's	Ba1	–	–	–	0.75	–
130	Institutions (Foundation-IRB)	≥0.9440% and <1.4159%	Moody's	Ba2	1	–	–	1.10	–
140	Institutions (Foundation-IRB)	≥1.4159% and <2.1239%	Moody's	Ba3	–	–	–	1.70	–
150	Institutions (Foundation-IRB)	≥2.1239% and <3.1858%	Moody's	Ba3	–	–	–	2.60	–
160	Institutions (Foundation-IRB)	≥3.1858% and <4.7788%	Moody's	B1	–	–	–	4.00	–
170	Institutions (Foundation-IRB)	≥4.7788% and <7.1681%	Moody's	B2	–	–	–	6.00	–
180	Institutions (Foundation-IRB)	≥7.1681% and <10.7522%	Moody's	B3	–	–	–	9.00	–
190	Institutions (Foundation-IRB)	≥10.7522% and <16.1283%	Moody's	Caa	–	–	–	13.50	–
200	Institutions (Foundation-IRB)	≥16.1283% and <100.0000%	Moody's	Caa	–	–	–	30.00	–
210	Institutions (Foundation-IRB)	=100%	Moody's	D	–	–	–	100.00	–

Table 19 shows a comparison of the expected losses with actual losses recognised on the balance sheet for the IRB exposure classes Institutions, Corporates and Retail Business for the period 2017 to 2021. The table reflects MünchenerHyp's conservative approach used to calculate the PD figure.

The comparison reveals that – as was already the case in the past – expected losses were several times larger than actual losses.

TABLE 19: COMPARISON OF EXPECTED LOSSES TO ACTUAL LOSSES RECOGNISED ON THE BALANCE SHEET

Comparison of expected losses versus actual losses recognised on the balance sheet as reported in the IRBA rating systems

	2017		2018		2019		2020		2021	
IRBA exposure class	Expected loss	Actual loss	Expected loss	Actual loss	Expected loss	Actual loss	Expected loss	Actual loss	Expected loss	Actual loss
Institutions	1	0	1	0	1	0	1	0	1	0
Corporates	18	– 8	16	– 3	13	11	23	9	17	3
Retail Business	17	4	14	2	14	1	21	1	23	2

The estimated loss is the expected loss per IRB report made on the basis of PD and LGD.

The expected loss stated in the previous annual report (i.e. 2021) is used as a (legal regulatory) loss forecast for a year (i.e. 31 December 2020). This figure already takes existing individual adjustments to value (IAV) into account. The loss recognised on the balance sheet is the sum of the direct write-downs and IAVs taken less recoveries of IAVs. Minor effects could arise due to fluctuations in currency rates.

In the past, the expected regulatory loss was always substantially higher than the actual losses that were recognised on the balance sheet. This is because there were only low or no losses realised in the IRBA rating systems outside of the retail areas of business (banks, individual mortgage business). In addition, rules related to CRR require "raised" expectations for regulatory-defined losses such as safety margins in Retail Business (scorecards, downturn LGD) or the high regulatory LGD values for mortgage loans in the IRBA-based approach.

Actual losses recognised on the balance sheet for the IRBA rating systems in 2021 were immaterial. The current situation in the property market offering good settlement possibilities played an important role in the low level of Retail Business losses recognised on the balance sheet. Calibration is basically possible in Retail areas of business where application scorecards are employed. The actual default rates are to some extent lower than the rates predicted by the behaviour scorecards. Due to the new default definition and the supervisory guidelines in the IRBA context, all Retail Business processes are currently being revised.

5.4.2 KSA Exposure Class

The customer segments or rating systems used to evaluate the creditworthiness of the KSA portfolios are summarised in Table 16. Rating procedures for non-IRBA rating systems are not used as a basis for determining regulatory-required own funds. The results of these rating systems are used as a basis for determining a risk-adjusted price and for additional bank management purposes. The rating results from non-IRBA rating systems are also standardised on a common basis using the VR master scale. If no internal rating procedures are available, external ratings are used to determine creditworthiness. In this context, only ratings from the leading agency

Fitch Ratings are used. The transfer of ratings from this agency to the VR master scale is shown in Table 13.

As a basic principle, MünchenerHyp does not transfer ratings for its issues to its claims.

TABLE 20: NON-IRBA RATING SYSTEMS AND KSA EXPOSURE CLASSES

Seq. no.	Customer segment / rating	KSA exposure classes
1.	Central governments (excl. EEA with zero weighting)	Sovereigns and central banks
2.	Central governments (EEA with zero weighting)	Sovereigns and central banks
3.	LRG (excluding EEA with zero weighting)	Regional and local administrative authorities
4.	LRG (EEA with zero weighting)	Regional and local administrative authorities
5.	Intra-group claims	Institutions
6.	Development banks	Public entities
7.	Special customers, residential housing	Corporates
8.	Investments	Investments
9.	Other	N/A
10.	Discontinued business	N/A

1. Central governments (excluding EEA with zero weighting)

This customer segment comprises sovereign states, with the exception of those in the European Economic Area (EEA) and using zero weighting pursuant to CRR. This customer segment is maintained in the Permanent Partial Use (PPU) area at MünchenerHyp.

The VR Rating Countries is used to evaluate the credit-worthiness of claims in this segment. The VR Rating Banks was developed in the Cooperative Financial Network under the leadership of DZ BANK AG. The ratings are provided to MünchenerHyp by DZ BANK AG in the context of a rating desk. The provided ratings are subjected to a plausibility check by the analysts at MünchenerHyp and adjusted if necessary.

2. Central governments (EEA, using zero weighting)

This customer segment comprises sovereign states within the EEA, using a zero weighting pursuant to CRR. This customer segment is maintained in Permanent Partial Use (PPU) at MünchenerHyp.

The VR Rating Countries is used to evaluate the creditworthiness of claims in this segment.

3. LRG (excluding EEA with zero weighting)

The customer segment of Local and Regional Government (LRG) comprises all of the regional governments, local authorities and public bodies, with the exception of those in the EEA, and uses a zero weighting pursuant to CRR. This customer segment is maintained in Permanent Partial Use (PPU) at MünchenerHyp.

The creditworthiness of claims in this customer segment is evaluated on the basis of the LRG rating. The LRG rating was developed under the leadership of the Association of German Pfandbrief Banks (vdp) with the participation of numerous German banks, including MünchenerHyp. The rating procedure was approved by the regulatory authorities for IRBA. The LRG rating takes into account, among other things, the financial strength and debt level of local and regional authorities.

4. LRG (EEA, with zero weighting)

This customer segment comprises all of the regional governments, local authorities and public bodies within the EEA and using a zero weighting pursuant to CRR. This customer segment is maintained in Permanent Partial Use (PPU) at MünchenerHyp.

The creditworthiness of claims in this customer segment is evaluated on the basis of the afore-mentioned LRG rating.

5. Intra-group claims

This customer segment comprises MünchenerHyp's claims against BVR members that belong to the BVR protection scheme. Intra-group receivables are shown with a risk weighting of 0%.

The creditworthiness of these claims is assessed on the basis of the VR rating for banks by the DZ BANK AG rating desk.

6. Development banks
This customer segment comprises development banks that do not fulfil German Banking Act requirements to be classified as multilateral development banks. Development banks are contained in the "Public entities" category. They are carried under PPU.

The creditworthiness evaluation of these claims is based on DZ BANK AG's VR Rating Banks.

7. Special customers, residential housing
This customer segment in principle contains claims relating to residential properties and where less than 50% of the customers' income is generated by property-related activities. This customer segment is shown in the PPU.

The creditworthiness of claims in this customer segment is evaluated using an expert-based classification procedure (decision matrix).

8. Investments
MünchenerHyp's investment portfolio can be classified as an insignificant investment portfolio as per Article 150 CRR. This is because the average accounting value of the investment portfolio, excluding items for legally regulated programmes to support specific industrial sectors, was less than 10% of the modified available equity capital over the past one-year period. As long as this ratio of "accounting value of investment items" to the "modified available equity capital" remains the same, investments will be administered in the PPU.

9. Other
The customer segment "Other" comprises all claims that do not have the characteristics of one of the above-mentioned customer segments. The claims in this segment are generally of marginal significance for MünchenerHyp's credit portfolio and are administered in the PPU. Due to the resumption of the commercial property financing business in the USA, current exposures as well as new business are carried under the "Other" customer segment.

The creditworthiness evaluation takes place using an appropriate method, frequently on the basis of the expert-based decision matrix.

10. Discontinued business
Pursuant to the terms of Section 14 of the German Solvency Regulation (SolvV), the "Discontinued Business" category defines areas of business where the Bank does not anticipate entering into new exposures or expanding its existing exposures. This category currently includes Geno loans (cooperative loans) with and without release from liability, mezzanine financing deals outside of Germany, credit lines secured by mortgages, as well as government-guaranteed corporate bonds. Discontinued business is administered in the PPU.

The creditworthiness evaluation takes place on the basis of a suitable rating procedure, e.g. the decision matrix.

Table 21 below provides a breakdown of exposures by exposure class and risk weighting using the standardised approach (in accordance with the risk content allocated to the exposure in the standardised approach). The risk weights shown in Table 21 encompass all those assigned to each credit quality step according to Articles 113 to 134 of Part Three, Title II Chapter 2 of the CRR (own funds requirements / own funds requirements for credit risks / standardised approach). The statement of risk exposure value for KSA is shown after the inclusion of credit risk mitigation effects from collateral. In this context, the total amount after credit risk mitigation is higher than before credit risk mitigation because positions from the IRBA portfolio are moved to the KSA portfolio through the provision of collateral.

Exposure values of derivatives, securities financing transactions (SFT), etc. are treated under the terms of CCR and for this reason are not shown here.

TABLE 21: EU CR6-A – SCOPE OF THE USE OF IRB AND SA APPROACHES

			a	b	c	d	e
			Exposure value as defined in Article 166 CRR for exposrues subject to IRB approach	Total exposure value for exposures subject to the Standardised approach and to the IRB approach	Percentage of total exposure value subject to the perma-nent partial use of the SA (%)	Percentage of total exposure value subject to IRB Approach (%)	Percentage of total exposure value subject to a roll-out plan (%)
0010	1	Central governments or central banks	–	3,615.6	100.00	–	–
0020	1,1	Of which Regional governments or local authorities	–	2,447.4	100.00	–	–
0030	1,2	Of which Public sector entities	–	255.4	100.00	–	–
0040	2	Institutions	292.9	362.4	19.20	80.80	–
0050	3	Corporates	12,825.3	13,472.5	0.71	93.14	6.15
0060	3,1	Of which Corporates – Specialised lending, excluding slotting approach	7,803.5	7,608.8	–	100.00	–
0070	3,2	Of which Corporates – Specialised lending under slotting approach	–	–	–	–	–
0080	4	Retail	32,660.8	30,650.9	0.25	99.75	–
0090	4,1	of which Retail – Secured by real estate SMEs	4,188.0	3,961.2	–	100.00	–
0100	4,2	of which Retail – Secured by real estate non-SMEs	28,472.8	26,612.1	–	100.00	–
0110	4,3	of which Retail – Qualifying revolving	–	–	–	–	–
0120	4,4	of which Retail – Other SMEs	–	0.6	100.00	–	–
0130	4,5	of which Retail – Other non-SMEs	–	77.0	100.00	–	–
0140	5	Equity	–	206.6	100.00	–	–
0150	6	Other non-credit obligation assets	140.4	141.2	0.62	99.38	–
0160	**7**	**Total**	**45,919.4**	**48,449.2**	**8.39**	**89.90**	**1.71**

TABLE 22: EU CR5 – STANDARDISED APPROACH

		Risk weight																
	Exposure classes	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1,250%	Others	Total	Of which unrated
		010	020	030	040	050	060	070	080	090	100	110	120	130	140	150	170	180
1	Central governments or central banks	912.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	912.7	–
2	Regional government or local authorities	2,454.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2,454.0	–
3	Public sector entities	253.2	–	–	–	–	–	–	–	–	2.2	–	–	–	–	–	255.4	2.2
4	Multilateral development banks	66.8	–	–	–	23.0	–	–	–	–	–	–	–	–	–	–	89.8	66.8
5	International organisations	30.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	30.0	30.0
6	Institutions	69.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	69.6	246.9
7	Corporates	–	–	–	–	34.3	–	–	–	–	663.7	–	–	–	–	–	698.0	698.0
8	Retail exposures	–	–	–	–	–	–	–	–	25.0	–	–	–	–	–	–	25.0	25.0
9	Exposures secured by mortgages on immovable property	–	–	–	–	–	130.9	138.4	–	–	–	–	–	–	–	–	269.3	269.3
10	Exposures in default	–	–	–	–	–	–	–	–	–	36.7	0.0	–	–	–	–	36.7	36.7
11	Exposures associated with particularly high risk	–	–	–	–	–	–	–	–	–	–	30.2	–	–	–	–	30.2	30.2
12	Covered bonds	67.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	67.3	67.3
13	Exposures to institutions and corporates with a short-term credit assess-ment	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
14	Units or shares in collective investment undertakings	–	–	–	–	–	–	–	–	–	–	–	–	–	–	143.5	143.5	143.5
15	Equity exposures	–	–	–	–	–	–	–	–	–	206.0	–	0.6	–	–	–	206.6	206.6
16	Other items	–	–	–	–	–	–	–	–	–	0.9	–	–	–	–	–	0.9	0.9
17	**Total**	**3,853.6**	**–**	**–**	**–**	**57.3**	**130.9**	**138.4**	**–**	**25.0**	**909.5**	**30.2**	**0.6**	**–**	**–**	**143.5**	**5,289.0**	**1,823.4**

5.5 Structure of Portfolio

This chapter classifies and presents MünchenerHyp's exposures according to various criteria. The information in this chapter is based on the exposure values before the inclusion of credit risk mitigation (CRM). The Bank did not hold any securitisations in 2021.

Table 23 below provides an overview of total RWA forming the denominator of the risk-based capital requirements pursuant to Article 92 CRR. The capital requirements on the disclosure date are compared with the RWA disclosed in the previous interim period, thereby providing an overview of RWA development at MünchenerHyp within the respective disclosure periods.

The IRBA shows all of the exposure values in the basic IRBA with the exception of Retail Business Domestic, Retail Business SME and Retail Business PostFinance. The advanced IRBA is used for Retail Business Domestic, Retail Business SME and Retail Business PostFinance. The IRBA portfolio for Retail Business only includes items secured by mortgage liens. The KSA shows all of the exposure values using the standardised approach, either as part of the PU or the PPU.

TABLE 23: EU OV1 – OVERVIEW OF RISK-WEIGHTED ASSETS (RWA)

		Risk weighted exposure amounts (RWEAs)		Total own funds requirements
		a	b	c
		31.12.2021	30.09.2021	31.12.2021
1	Credit risk (excluding CCR)	7,183.2	7,044.1	572.6
2	Of which the standardised approach	1,135.7	1,205.9	90.9
3	Of which the foundation IRB (FIRB) approach	3,409.4	3,279.0	272.8
4	Of which slotting approach	–	–	–
EU 4a	Of which equities under the simple riskweighted approach	–	–	–
5	Of which the advanced IRB (AIRB) approach	2,613.0	2,534.6	209.0
6	Counterparty credit risk – CCR	340.6	340.1	27.3
7	Of which the standardised approach	93.0	96.9	7.4
8	Of which internal model method (IMM)	–	–	–
EU 8a	Of which exposures to a CCP	–	–	–
EU 8b	Of which credit valuation adjustment – CVA	247.7	242.9	19.8
9	Of which other CCR	–	0.3	–
10	Empty set in the EU	–	–	–
11	Empty set in the EU	–	–	–
12	Empty set in the EU	–	–	–
13	Empty set in the EU	–	–	–
14	Empty set in the EU	–	–	–
15	Settlement risk	–	–	–
16	Securitisation exposures in the non-trading book (after the cap)	–	–	–
17	Of which SEC-IRBA approach	–	–	–
18	Of which SEC-ERBA (including IAA)	–	–	–
19	Of which SEC-SA approach	–	–	–
EU 19a	Of which 1,250%/deduction	–	–	–
20	Position, foreign exchange and commodities risks (Market risk)	–	–	–

Table 23 continued on page 64

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TABLE 23: EU OV1 – OVERVIEW OF RISK-WEIGHTED ASSETS (RWA)

		Risk weighted exposure amounts (RWEAs)		Total own funds requirements
		a	b	c
		31.12.2021	30.09.2021	31.12.2021
21	Of which the standardised approach	–	–	–
22	Of which IMA	–	–	–
EU 22a	Large exposures	–	–	–
23	Operational risk	451.5	410.7	36.1
EU 23a	Of which basic indicator approach	451.5	410.7	36.1
EU 23b	Of which standardised approach	–	–	–
EU 23c	Of which advanced measurement approach	–	–	–
24	Amounts below the thresholds for deduction (subject to 250% risk weight) (For information)	1.4	–	0.1
25	Empty set in the EU	–	–	–
26	Empty set in the EU	–	–	–
27	Empty set in the EU	–	–	–
28	Empty set in the EU	–	–	–
29	**Total**	**7,975.3**	**7,795.0**	**636.0**

Table 24 provides a breakdown of the net values of on-balance sheet exposures (excluding commitments) by contractual residual maturities.

TABLE 24: EU CR1-A

		a	b	c	d	e	f
		Net exposure value					
		On demand	≤ 1 year	> 1 year ≤ 5 years	> 5 years	No stated maturity	Total
1	Loans and advances	616.7	1,498.5	9,104.8	37,568.1	399.2	49,187.3
2	Debt securities	–	226.0	837.0	1,150.9	–	2,213.9
3	**Total**	**616.7**	**1,724.5**	**9,941.8**	**38,719.0**	**399.2**	**51,401.2**

5.6 Risk Mitigation and Hedging

Both the IRBA and the KSA permit institutions to take the applied credit risk mitigation techniques (collateral) into account when calculating their regulatory own funds requirements. In order to take collateral into account when calculating own funds requirements, the institutions must meet minimum requirements that are explicitly regulated in the CRR and the KWG, as well as in the interpretation decisions developed by the supervisory authority and in circulars. All of the classes of collateral used to mitigate credit risk at MünchenerHyp are recognised pursuant to CRR.

MünchenerHyp's principles of collateralisation are an integral part of its business and risk strategies, and are regulated in detail by internal organisational instructions. This involves the definition of category and fundamental framework conditions for recognising, evaluating, monitoring and reviewing collateral accepted by MünchenerHyp as a Pfandbrief bank. The collateral in question is defined in detail in the internal organisational guidelines and separated by country, property category, intended usage and other characteristics.

MünchenerHyp does not practice balance sheet netting. With regard to derivative items, net market values are offset vis-à-vis a counterparty using cash deposits that were provided. Volatility adjustments are only relevant as factors for calculating securities positions in connection with repurchase agreements.

Eligible collateral is described in Article 194 (3) 3 CRR in association with Articles 197-200 CRR. As a general rule, the following categories of collateral are recognised at MünchenerHyp:

- Residential and commercial property[3] secured by mortgage liens pursuant to Article 199 CRR. Because of its strategic direction, MünchenerHyp primarily uses mortgage securities for completed security objects, or for security objects that are to be completed by the time the credit has been paid out in full.
- Warranties in the form of guarantees / bonds: the issuer of warranties that MünchenerHyp considers to be risk mitigating are regional governments and local authorities pursuant to Article 201 (1) CRR, and a reinsurance company.
- Pursuant to Article 193 (4) CRR, MünchenerHyp defines financial collateral exclusively in the context of calculating cash securities (collateral) for derivatives and repo transactions. The exposures are determined based on netting and collateral offsetting.

MünchenerHyp monitors possible risk concentrations and cluster risks that it enters into on the basis of its strategic orientation as a mortgage bank. Here the sizes, property categories and regional distribution of the properties play a role. These risk drivers are subject to strict monitoring. In this context, the publication as per Article 28 PfandBG (German Pfandbrief Act) should be noted, which clearly explains potential cluster risks in MünchenerHyp's cover funds on a quarterly basis.

In a quantitative sense, this chapter discloses collateral that has a risk-mitigating effect on regulatory capital backing requirements. Collateral is taken into consideration in accordance with CRR either in the Probability of Default (PD), the Loss Given Default (LGD) or using a risk weighting set defined by the supervisory authority for the secured claim. In Retail Business, which is subject to the advanced IRBA, collateral secured by mortgage liens is implicitly taken into account via the LGD.

[3] For MünchenerHyp, pure loan financing for property is relevant here in terms of the requirements defined by the supervisory authority. MünchenerHyp does not appear as a lease provider (and therefore an owner) of properties. The regulations for property leasing are thus not relevant to MünchenerHyp at this time.

Table 25 shows collateral taken into account for KSA exposures. As with the IRBA exposure classes, KSA exposure classes do not take risk mitigation into account for any financial collateral.

For information on the collateral and financial guarantees used by MünchenerHyp to mitigate credit risk, see also Table EU CR3.

TABLE 25: EU CR4 – STANDARDISED APPROACH AND CREDIT RISK MITIGATION (CRM) EFFECTS

		a	b	c	d	e	f
		Exposures before CCF and before CRM		Exposures post CCF and post CRM		RWAs and RWAs density	
	Exposure classes	On-balance-sheet exposures	Off-balance-sheet exposures	On-balance-sheet exposures	Off-balance-sheet exposures	RWAs	RWAs density (%)
1	Central governments or central banks	912.7	–	912.7	–	0.0	0.00
2	Regional government or local authorities	2,447.5	–	2,454.1	–	0.0	0.00
3	Public sector entities	255.4	–	255.4	–	2.2	0.88
4	Multilateral development banks	89.8	–	89.8	–	4.6	5.12
5	International organisations	29.9	–	29.9	–	0.0	0.00
6	Institutions	69.6	–	69.6	–	0.0	0.00
7	Corporates	627.3	86.0	655.0	43.0	572.8	82.05
8	Retail	19.4	11.3	19.4	5.6	18.8	75.00
9	Secured by mortgages on immovable property	261.6	15.4	261.6	7.7	101.2	37.59
10	Exposures in default	36.7	–	36.7	–	36.7	100.00
11	Exposures associated with particularly high risk	30.2	–	30.2	–	45.2	150.00
12	Covered bonds	67.3	–	67.3	–	0.0	0.00
13	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–
14	Collective investment undertakings	143.5	–	143.5	–	145.9	101.68
15	Equity	206.6	–	206.6	–	207.4	100.40
16	Other items	0.9	0.0	0.9	0.0	0.9	100.00
17	**Total**	**5,198.4**	**112.7**	**5,232.7**	**56.3**	**1,135.7**	**21.47**

5.7 Non-Performing Loans and Provisions for Risk

The relevant regulatory disclosures in these chapters are derived from the ECB's Non-Performing Loans ("NPL") Guideline and the Implementing Regulation (EU) 2021/637.

In view of MünchenerHyp's extremely low number of non-performing loans (NPL), it is not to be referred to as a "high NPL bank" as described as per the afore-mentioned guidelines.

The procedures related to NPLs and the avoidance of NPLs that have been implemented by MünchenerHyp for a long time enabled the Bank to successfully avoid NPLs to a great extent in the 2021 business year and in the past.

Based on the figures regarding NPLs disclosed in the tables shown below, MünchenerHyp had an NPL ratio of 0.45%, which reflects the total volume of NPLs to the total loan portfolio. MünchenerHyp's NPL ratio can be qualified as particularly low.

As a "non-NPL bank" according to Art. 8 EU 2021/631 – with an NPL ratio below 5% – the bank is exempt from full disclosure pursuant to Art. 8 (3) of the Implementing Regulation (EU) 2021/637.

MünchenerHyp defines non-performing exposures / non-performing loans as claims where

- A default event pursuant to the definition of "default" has occurred, and/or
- Forbearance measures have already been granted to the debtor and
  - a) Additional concessions have been made within the 2-year forbearance probation period or if the loan has previously been removed from the "non-performing" category
  - b) Despite concessions made within the 2-year probation period, the debtor is still more than 30 days in arrears.

MünchenerHyp defines affected loans as being in "Default" when certain criteria are met. These criteria include: 90 days past due, debtor is unlikely to pay, application for insolvency, termination, need for risk provisioning, crisis-related restructuring, write-offs. Loans in default are always considered to be non-performing loans.

A default in the sense of crisis-related restructuring is deemed to exist if a forbearance measure is taken and one of the following conditions is met when the measure is implemented:

- The measure leads to a decrease in the present value of the sum of all claims against the debtor of more than 1%.
- The debtor is already considered to be in default elsewhere.
- There are other indications of unlikely repayment of the debtor's liabilities.

In addition, all risk positions classified as deferred and non-performing are deemed to be in default in the sense of crisis-related restructuring.

MünchenerHyp classifies exposures that are not categorised as "Non-Performing Exposures" as "Performing Exposures". There is no overlap between the two subsets.

MünchenerHyp employs the following assumptions to identify impaired assets.

- **Materiality thresholds:** € 100 or € 500 in arrears and 1.0% of the total amount of all balance sheet risk positions.
- **90 days past due criterion:** Method used to count days past due. Every working day, an assessment takes place at debtor level to determine if a material delay exists. The first day past due is counted the first time a debtor misses a payment. For every day thereafter when a material delay takes place, the number of days past due is raised by one day. As soon as the debtor is no longer materially past due, the number of days past due is reduced to zero.
- **Indicators of unlikeliness to pay:** In accordance with Article 178 (1) a CRR, MünchenerHyp assesses that a debtor is highly unlikely to repay his obligations in full unless certain measures are taken such as the recovery of collateral (repossession and sale of collateral).

This default event is to be interpreted as, and applied, under the term "Other default events" to the extent that a classification is not possible under one of the other listed default events.

Indications that a debtor is unlikely to be repay are, for example:

1. Unsuccessful personal coercive measures before termination
2. Realisation of additional collateral
3. Unrestricted sale / emergency sale of the property due to change in creditworthiness as an alternative to a bank-side materially coercive measure (regardless of whether the claim can be fully or partially repaid as a result)
4. Entry in the debtors' register / submission of the statement of assets (affidavit)
5. Permanent and severe limitation of the ability to service debt (in the individual customer business, there is always an indication if a financing-related debt service coverage ratio (DSCR) falls below the threshold value of 100%)
6. Sources of recurring income of a debtor are no longer available to meet the obligation to pay the instalments
7. There is always an indication in the individual customer business if the market value of at least one property is reduced by more than 30% (comparison of the current market value with the most recently determined market value) and the resulting LTV is > 75% for at least one loan.
8. The borrower has breached material credit conditions in the loan agreement (e.g. breach of covenant not remedied)
9. Redemption payments that are three months or more in arrears due to creditworthiness reasons
10. Waiver of current interest charges
11. Negative information from external credit agencies (e.g. SCHUFA or Creditreform), in particular in the case of debt collection or attachment
12. Loan fraud
13. Debtor makes use of contractually agreed options to change the schedule, suspend or postpone payments
14. Repayment of an obligation is suspended because a law grants this option or other legal restrictions exist
15. Requirement of additional security (including a guarantee)
16. For risk positions vis-à-vis a natural person: default of an enterprise wholly owned by a single natural person, provided that this natural person has given the institution a personal guarantee for all the commitments of an enterprise.
17. The existence of a default rating that MünchenerHyp adopts as part of a rating assumption
18. Default rating of the external rating agency Fitch Ratings

- **Impairment policies** related to non-performing exposures: MünchenerHyp has established certain criteria in its credit business that if triggered will lead to a mandatory assessment to determine if an individual adjustment to value (IAV) of an exposure is required. In addition, what are known as soft criteria also exist, which may make it professionally feasible to assess the need for an IAV and thus could serve as a trigger for an IAV.

Criteria that will lead to a mandatory assessment of the need for an IAV are:

1. For all business divisions: defaulted exposures
2. Complementary to Retail Business: Over 45 days past due (individual exposure level) and payment arrears of over € 2,500 and € 0 amount covered by collateral, or more than 45 days past due (individual exposure level), € 0 amount covered by collateral and payment arrears of over € 10,000.
3. Complementary to the individual business: Rating of > 3e, or more than 45 days past due (individual exposure level) and payment arrears of over € 2,500.

If significant new information is received for a loan that has already undergone an IAV, the loan will require a renewed assessment and, if needed, an adjustment (increase, reduction, or complete write-off) of the IAV. Irrespective of this, an updated assessment of the IAV undertaken will take place on the date of record, 30 September, every year.

The managerial instructions that form the basis for the IVA assessment are examined every year by the specialised department responsible for IVA management. The Board of Management will decide on proposals concerning adjustments that may arise from this review.

Beyond these measures, MünchenerHyp created a general adjustment to value (GAV) as a precautionary measure to cover latent lending risks. The basis for calculating this GAV is the terms contained in a Federal Ministry of Finance notice dated 10 January 1994. The GAV is calculated based on the average volume of defaults that took place over the last five years in relation to the average volume of loans-at-risk made during this period. Furthermore, contingency reserves under Article 340f German Commercial Code (HGB) were also created. These contingency reserves are based on a prudent commercial judgement of reserves required to contain the special risks arising from the Bank's business operations.

Table 26 below discloses changes in MünchenerHyp's stock of defaulted loans and debt securities excluding commitments made by the Bank.

The item "Other changes" in row 5 primarily reflects currency fluctuations as well as redemptions of existing impaired loans.

TABLE 26: EU CR2

		Gross carrying amount of defaulted exposures
		010
1	Opening balance	207.60
2	Loans and debt securities that have defaulted or impaired since the last reporting period	63.30
3	Returned to non-defaulted status	– 12.60
4	Amounts written off	– 0.80
5	Other changes	– 34.30
6	**Closing balance**	**223.20**

* Loan commitments have also been taken into account in the amounts stated.

Table 27 shows all of the collateral and financial guarantees used by MünchenerHyp to mitigate credit risk for all secured exposures irrespective of whether the calculation of RWA was made using the standardised approach or the IRB approach. MünchenerHyp does not use credit derivatives as collateral.

The KSA position "Equity exposures" is not included in this.

TABLE 27: EU CR3 – CRM TECHNIQUES OVERVIEW: DISCLOSURE OF THE USE OF CREDIT RISK MITIGATION TECHNIQUES

		Secured carrying amount			
	Unsecured carrying amount		Of which secured by collateral	Of which secured by financial guarantees	Of which secured by credit derivatives
	a	b	c	d	e
Loans and advances	3,580.8	41,517.0	41,510.4	6.6	–
Debt securities	6,713.9	0.0	0.0	0.0	–
Total	**10,294.7**	**41,517.0**	**41,510.4**	**6.6**	**–**
Of which non-performing exposures	34.6	186.4	186.4	0.0	–
Of which defaulted	34.6	186.4	186.4	0.0	–

Table 28 below shows the distribution of defaulted and non-defaulted exposures by exposure category. This table provides a comprehensive overview of the credit quality of MünchenerHyp's on-balance sheet and off-balance sheet exposures.

It should be noted that MünchenerHyp does not account for reserves allocated to the KSA portfolio, and especially reserves pursuant to Article 340f of the German Commercial Code, as general adjustments to value. The corresponding amount of about € 3.8 million is treated as supplementary capital.

TABLE 28: EU CQ1 – CREDIT QUALITY OF FORBORNE EXPOSURE

		a	b	c	d	e	f	g	h
		Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
			Non-performing forborne						
		Performing forborne		Of which defaulted	Of which impaired	On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
5	Cash balances at central banks and other demand deposits	–	–	–	–	–	–	–	–
10	Loans and advances	208.0	76.2	76.2	42.2	– 10.5	– 13.7	26–	62.6
20	Central banks	–	–	–	–	–	–	–	–
30	General governments	–	–	–	–	–	–	–	–
40	Credit institutions	–	–	–	–	–	–	–	–
50	Other financial corporations	7.8	0.8	0.8	–	– 1.7	–	6.9	0.8
60	Non-financial corporations	186.6	62.2	62.2	36.6	– 8.3	– 12.4	228.2	49.9
70	Households	13.7	13.2	13.2	5.6	– 0.5	– 1.4	25.0	11.9
80	Debt Securities	–	–	–	–	–	–	–	–
90	Loan commitments given	–	–	–	–	–	–	–	–
100	**Total**	**208.0**	**76.2**	**76.2**	**42.2**	**– 10.5**	**– 13.7**	**260.1**	**62.6**

The following Tables 29 to 32 show a detailed breakdown of non-performing loans and the value adjustments made at MünchenerHyp.

TABLE 29: EU CR1 – PERFORMING AND NON-PERFORMING EXPOSURES AND RELATED PROVISIONS*
PART 1 OF 3

		Gross carrying amount/nominal amount					
		Performing exposures			Non-performing exposures		
			Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3
		a	b	c	d	e	f
5	Cash balances at central banks and other demand deposits	1,434.9			–		
10	Loans and advances	43,441.8			221.0		
20	Central banks	–			–		
30	General governments	1,335.9			–		
40	Credit institutions	495.1			–		
50	Other financial corporations	1,966.9			12.2		
60	Non-financial corporations	14,721.1			132.9		
70	Of which SMEs	12,655.3			132.9		
80	Households	24,922.8			75.9		
90	Debt securities	6,713.9			–		
100	Central banks	–			–		
110	General governments	1,684.0			–		
120	Credit institutions	4,982.0			–		
130	Other financial corporations	48.0			–		
140	Non-financial corporations	–			–		
150	Off-balance-sheet exposures	5,125.1			2.2		
160	Central banks	–			–		
170	General governments	–			–		
180	Credit institutions	–			–		
190	Other financial corporations	148.5			0.4		
200	Non-financial corporations	1,362.1			0.8		
210	Households	3,614.6			1.0		
220	**Total**	**56,715.8**			**223.2**		

* Separate risk provisioning (Stage 1 and 2) in accordance with the requirements of IFRS 9 ist not relevant for MünchenerHyp as a National GAAP bank

TABLE 29: EU CR1 – PERFORMING AND NON-PERFORMING EXPOSURES AND RELATED PROVISIONS
PART 2 OF 3

		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
		Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
			Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3
		g	h	i	j	k	l
5	Cash balances at central banks and other demand deposits	–			–		
10	Loans and advances	– 95.0			– 34.6		
20	Central banks	–			–		
30	General governments	–			–		
40	Credit institutions	– 0.3			–		
50	Other financial corporations	– 4.9			–		
60	Non-financial corporations	– 43.0			– 26.8		
70	Of which SMEs	– 40.6			– 26.8		
80	Households	– 46.9			– 7.8		
90	Debt securities	–			–		
100	Central banks	–			–		
110	General governments	–			–		
120	Credit institutions	–			–		
130	Other financial corporations	–			–		
140	Non-financial corporations	–			–		
150	Off-balance-sheet exposures	– 1.0			–		
160	Central banks	–			–		
170	General governments	–			–		
180	Credit institutions	–			–		
190	Other financial corporations	–			–		
200	Non-financial corporations	– 0.5			–		
210	Households	– 0.4			–		
220	**Total**	**– 96.0**			**– 34.6**		

TABLE 29: EU CR1 – PERFORMING AND NON-PERFORMING EXPOSURES AND RELATED PROVISIONS
PART 3 OF 3

			Collateral and financial guarantees received	
		Accumulated partial write-off	On performing exposures	On non-performing exposures
		m	n	o
5	Cash balances at central banks and other demand deposits		–	–
10	Loans and advances		41,330.6	186.4
20	Central banks		–	–
30	General governments		–	–
40	Credit institutions		–	–
50	Other financial corporations		1,835.5	12.2
60	Non-financial corporations		14,668.6	106.1
70	Of which SMEs		12,605.2	106.1
80	Households		24,826.5	68.1
90	Debt securities		–	–
100	Central banks		–	–
110	General governments		–	–
120	Credit institutions		–	–
130	Other financial corporations		–	–
140	Non-financial corporations		–	–
150	Off-balance-sheet exposures		4,912.6	2.2
160	Central banks		–	–
170	General governments		–	–
180	Credit institutions		–	–
190	Other financial corporations		148.5	0.4
200	Non-financial corporations		1,314.4	0.8
210	Households		3,449.7	1.0
220	**Total**		**46,243.2**	**188.6**

TABLE 30: EU CQ3 – CREDIT QUALITY OF PERFORMING AND NON-PERFORMING EXPOSURES BY PAST DUE DAYS
PART 1 OF 2

		Gross carrying amount/nominal amount					
		Performing exposures			Non-performing exposures		
			Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days
		a	b	c	d	e	f
5	Cash balances at central banks and other demand deposits	1,434.9	1,434.9	–	–	–	–
10	Loans and advances	43,441.8	43,435.0	6.8	221.0	147.8	8.4
20	Central banks	–	–	–	–	–	–
30	General governments	1,335.9	1,335.9	–	–	–	–
40	Credit institutions	495.1	495.1	–	–	–	–
50	Other financial corporations	1,966.9	1,966.8	0.1	12.2	11.8	–
60	Non-financial corporations	14,721.1	14,719.7	1.4	132.9	92.1	2.1
70	Of which SMEs	12,655.3	12,653.9	1.4	132.9	92.1	2.1
80	Households	24,922.8	24,917.6	5.3	75.9	43.8	6.3
90	Debt securities	6,713.9	6,713.9	–	–	–	–
100	Central banks	–	–	–	–	–	–
110	General governments	1,684.0	1,684.0	–	–	–	–
120	Credit institutions	4,982.0	4,982.0	–	–	–	–
130	Other financial corporations	48.0	48.0	–	–	–	–
140	Non-financial corporations	–	–	–	–	–	–
150	Off-balance-sheet exposures	5,125.1			2.2		
160	Central banks	–			–		
170	General governments	–			–		
180	Credit institutions	–			–		
190	Other financial corporations	148.5			0.4		
200	Non-financial corporations	1,362.1			0.8		
210	Households	3,614.6			1.0		
220	**Total**	**58,150.6**	**51,583.8**	**6.8**	**223.2**	**147.8**	**8.4**

TABLE 30: EU CQ3 – CREDIT QUALITY OF PERFORMING AND NON-PERFORMING EXPOSURES BY PAST DUE DAYS
PART 2 OF 2

		Gross carrying amount/nominal amount					
		Non-performing exposures					
		Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
		g	h	i	j	k	l
5	Cash balances at central banks and other demand deposits	–	–	–	–	–	–
10	Loans and advances	32.4	10.0	9.5	0.6	12.4	221.0
20	Central banks	–	–	–	–	–	–
30	General governments	–	–	–	–	–	–
40	Credit institutions	–	–	–	–	–	–
50	Other financial corporations	–	0.4	–	–	–	12.2
60	Non-financial corporations	24.3	0.9	1.2	0.1	12.3	132.9
70	Of which SMEs	24.3	0.9	1.2	0.1	12.3	132.9
80	Households	8.1	8.7	8.4	0.5	0.1	75.9
90	Debt securities	–	–	–	–	–	–
100	Central banks	–	–	–	–	–	–
110	General governments	–	–	–	–	–	–
120	Credit institutions	–	–	–	–	–	–
130	Other financial corporations	–	–	–	–	–	–
140	Non-financial corporations	–	–	–	–	–	–
150	Off-balance-sheet exposures						2.2
160	Central banks						–
170	General governments						–
180	Credit institutions						–
190	Other financial corporations						0.4
200	Non-financial corporations						0.8
210	Households						1.0
220	**Total**	**32.4**	**1–**	**9.5**	**0.6**	**12.4**	**223.2**

TABLE 31: EU CQ4 – QUALITY OF NON-PERFORMING EXPOSURES BY GEOGRAPHY

		Gross carrying/nominal amount						
			Of which non-performing					
				Of which defaulted	Of which subject to impairment	Accumulated impairment	Provisions on off-balance-sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		a	b	c	d	e	f	g
010	On-balance-sheet exposures	51,811.7	221.0	221.0	51,811.7	– 129.6	–	
020	Germany	39,444.5	107.9	107.9	39,444.5	– 75.5	–	
030	Switzerland	5,170.8	2.7	2.7	5,170.8	– 8.2	–	
040	Luxembourg	2,407.5	35.8	35.8	2,407.5	– 17.3	–	
050	USA	868.6	37.0	37.0	868.6	– 4.7	–	
060	France	764.7	13.4	13.4	764.7	– 13.3	–	
070	The Netherlands	764.4	–	–	764.4	– 2.1	–	
080	Spain	703.6	0.1	0.1	703.6	– 3.3	–	
090	Great Britain	458.4	–	–	458.4	– 0.8	–	
100	Austria	345.2	0.4	0.4	345.2	– 0.4	–	
110	Ireland	169.2	–	–	169.2	–	–	
120	Finland	150.5	–	–	150.5	–	–	
130	Jersey	145.5	–	–	145.5	– 2.7	–	
140	Belgium	105.9	–	–	105.9	– 0.1	–	
150	Other	312.8	23.7	23.7	312.8	– 1.2	–	
160	Off-balance-sheet exposures	5,127.3	2.2	2.2	–	–	– 1.0	
170	Germany	4,544.6	2.2	2.2	–	–	– 0.8	
180	Switzerland	233.4	–	–	–	–	–	
190	Luxembourg	149.1	–	–	–	–	– 0.1	
200	Other	200.3	–	–	–	–	– 0.1	
210	**Total**	**56,939.0**	**223.2**	**223.2**	**51,811.7**	**– 129.6**	**– 1.0**	

TABLE 32: EU CQ5 – CREDIT QUALITY OF LOANS AND ADVANCES BY INDUSTRY

		Gross carrying amount					
			Of which non-performing				
				Of which defaulted	Of which loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		10	20	30	40	50	60
1	Agriculture, forestry and fishing	98.2	0.6	0.6	98.2	– 0.4	–
2	Mining and quarrying	2.0	–	–	2.0	–	–
3	Manufacturing	154.2	1.6	1.6	154.2	– 0.9	–
4	Electricity, gas, steam and air conditioning supply	13.9	–	–	13.9	– 0.1	–
5	Water supply	18.0	–	–	18.0	–	–
6	Construction	323.6	3.1	3.1	323.6	– 1.4	–
7	Wholesale and retail trade	183.0	1.6	1.6	183.0	– 1.0	–
8	Transport and storage	30.5	0.1	0.1	30.5	– 0.1	–
9	Accommodation and food service activities	81.3	0.6	0.6	81.3	– 0.4	–
10	Information and communication	103.0	0.4	0.4	103.0	– 0.4	–
11	Financial and insurance actvities	–	–	–	–	–	–
12	Real estate activities	12,606.9	119.7	119.7	12,606.9	– 59.6	–
13	Professional, scientific and technical activities	320.6	1.5	1.5	320.6	– 1.3	–
14	Administrative and support service activities	350.4	0.9	0.9	350.4	– 1.2	–
15	Public administration and defense, compulsory social security	–	–	–	–	–	–
16	Education	19.6	–	–	19.6	– 0.1	–
17	Human health services and social work activities	262.7	0.7	0.7	262.7	– 1.2	–
18	Arts, entertainment and recreation	42.8	0.3	0.3	42.8	– 0.2	–
19	Other services	243.2	1.8	1.8	243.2	– 1.4	–
20	**Total**	**14,854.0**	**132.9**	**132.9**	**14,854.0**	**– 69.8**	**–**

5.8 Risk Reports and Management Information Systems

Risk reports provide the foundation for management decisions. These reports are regularly prepared for various groups.

The Bank's credit risk situation is extensively presented in the Credit Risk Report, which is prepared on a quarterly basis. Particular attention is devoted to the following risk-relevant subjects in risk reporting: portfolio structure, limit utilisation, quantification of risk, cluster and concentration risks, provisions for risk, workout management's portfolio, intensive attention portfolio, as well as the development of new business. All risk-relevant key figures are reviewed within the context of the quarterly risk report, including expected and unexpected losses as applicable to both the consolidated portfolio and sub-portfolio level. In addition, for each consolidation level, each portfolio is split by rating classification, size category, loan-to-value ratio, type of property, region and broker, among other criteria. The Credit Risk Report is distributed to:

- Supervisory Board
- Board of Management
- Various unit and department heads

The extent to which the limits are utilised for capital market purposes is measured on a daily basis, and a corresponding utilisation report is submitted once a week. A separate monthly status report is reported to the Board of Management consisting of a monitoring list presenting the utilisation of limits for the capital market sector, and if they were exceeded at any time. The weekly utilisation report reviewing the limits for the capital market is distributed to the following executive bodies:

- Member of the Board of Management responsible for Transaction Management Treasury
- Head of Transaction Management Treasury
- Head of Transaction Management – Active

A report will be submitted to the above executive bodies pursuant to the escalation procedure if the limits are exceeded in the area of Capital Market – Active.

The Transaction Management departments are responsible for monitoring the country limits within the context of new business decisions. Measurement of the utilisation of the country limits for mortgage business purposes takes place on a daily basis and is prepared by the Transaction Management department. Pursuant to the escalation procedure, a report will be submitted to the Board of Management and the responsible market department within the framework of proposed resolutions for new business purposes in the event that a country limit for mortgage business is exceeded. The Credit Risk Controlling department is responsible for the quarterly assessment of country limits for the mortgage business within the Credit Risk Report. Country limits for municipal loans are treated similarly.

6 MARKET PRICE RISK

6.1 Containment

Market price risks involve risks to the value of items or portfolios due to changes in market parameters, e.g. interest rates or exchange rates. They are quantified as a potential present-value loss using the present-value model. We distinguish between risks associated with changes in interest rates, (credit) spreads, options, currency, commodities and stocks.

The interest rate change risk describes the risk that the market value of interest-rate-dependent investments or liabilities could develop negatively. It is the most important component of market price risks for MünchenerHyp.

The credit spread is defined as the difference in yield for a risky and a non-risky bond. Spread risks account for the danger that this difference in interest rates could change despite no changes taking place in creditworthiness. The reasons for changes in yield premiums are: varying estimates by market participants, actual changes in issuers' credit quality – as long as this is not already reflected in the rating – and macroeconomic factors that affect creditworthiness categories. All bonds are affected by credit spread risk.

Among other considerations, options also include the following risks:

- Vega: the risk that increasing or declining volatility will change the value of a derivative instrument
- Theta: the risk that the value of a derivative instrument will change over time
- Rho: the risk that the option value will change if the risk-free interest rate changes
- Gamma: the risk that the option deltas will change if the price of the underlying value changes

The currency risk describes the risk that the market value of exchange-rate-dependent investments or liabilities could develop negatively due to changes in the exchange rate.

Commodities and stock risk refers to the risk of a negative price development in the commodities or stock market that leads to a decline in the value of an asset. Commodities and stock risks are only of minor relevance for MünchenerHyp as – in addition to our existing investments within the Cooperative Financial Network – only a special fund has been established that may invest a portion of its assets in commodities and stocks.

6.2 Strategies and Processes

In order to manage market price risks, all transactions at MünchenerHyp are subject to a daily present-value analysis in the risk management system. As a rule, structured transactions are secured with a micro-hedge, which is equivalent to the evaluation of a synthetic floater when valuing the interest rate risk. Thus far, deposits still play a secondary role for MünchenerHyp and at the end of the 2021 business year they totalled around € 520 million.

The Delta vector is the backbone of our interest rate risk management system and is calculated on a daily basis. This figure is determined by the change in the present value incurred per range of maturities when the mid-swap curve is raised by one basis point. MünchenerHyp uses the value-at-risk figure (VaR) to identify and limit market risks. Linear as well as non-linear risks are taken into consideration using a historic simulation containing the risk factors of interest rates, foreign exchange rates and volatility when calculating value-at-risk. Additional stress scenarios are used here to measure the effect of extreme shifts in risk factors.

The following assumptions are made to determine the VaR associated with the premature repayment of loans:

- The possibility that a borrower will repay his loan before it matures pursuant to Article 489 BGB is modelled using an adjusted cash flow and Bermudan receiver swaptions, which are entered in the performance and risk calculation as model transactions. Part of the repayments is then modeled using a fixed annual ratio. This model assumes that a portion of repayments will made irrespective of the level of interest rates. The interest-rate-sensitive portion is determined with the aid of historic repayment ratios that form a repayment matrix (when / at what interest rate level will notice of repayment be given?) and an interest rate structure model that is used to forecast the future development of interest rates The matrix also takes automatically into account the portion that will not exercise the right of repayment.
- The possibility that a borrower will exercise his contractual right to repay his loan before it matures is modelled using an adjusted cash flow model, whereby the historically observed premature repayment rate options exercised to repay loans before they mature is applied against the current sum of outstanding mortgage loans that have conditions that allow unscheduled repayment options to simulate the future rate at which early repayment will take place. The adjusted cash flow model is updated regularly.
- Payment obligations arising from mortgage loans are presented based on a historic payments profile.
- As MünchenerHyp's deposits business is in the form of one-year fixed-term deposits, the related model used for internal risk management purposes uses an expert estimate for a duration of 3 ½ years. Since valid backtesting is not yet possible due to the relatively short history of the business, the figures from this modelling are not used for evaluations required by the supervisory authorities. Instead, the legal cash flow is always used here.
- In the case of bonds treated as assets, it is assumed that the principle will be repaid upon maturity. Bonds carrying explicit call rights are included with delta-weighting in the measure of risk exposure.

The current (daily) stress scenarios for managing interest rate risk are:

- Legal regulatory requirements: The current interest rate curve is completely parallel shifted up and down by 200 basis points for every separate currency used. A maturity-independent floor is set, which means that no value smaller than −1% is permitted for overnight interest rates. This lower limit rises by 5 bp per annum, so that no negative interest rates are permitted from the 20-year reference point onwards. However, if current negative market interest rates are below this limit, they will be retained during the shift. Thereafter, the changes in the present value of the various currencies will be added together, whereby positive present value changes will only account for 50%. The entire procedure is carried out separately for the parallel shifts up and down, and the worst result of each shift is taken into account for and added to the total value.
- There are also six other scenarios used as early warning indicators and which are calculated using the identical principle:
  - Parallel interest rate increase (in currency-specific amount)
  - Parallel interest rate reduction (in currency-specific amount)
  - Steepening
  - Flattening
  - Short-term upwards shock
  - Short-term downwards shock

  The worst of the six scenarios mentioned then results in the early warning value.
- Parallel shifts: The current interest rate curve is completely shifted up and down by 50 basis points across all currencies. No floor of 0 is set for the downwards shift, i.e. negative interest rates are permitted. The worst result of the two shifts is used for calculation purposes.

The following events continue to be used for historical scenario purposes:

- September 11, 2001, terror attack in New York: Changes seen in market prices between September 10, 2001, and September 24, 2001 – the immediate market reaction to the attack – are transferred using the current levels as a base level.
- The 2008 crisis in the financial markets: Changes in interest rates and foreign exchange rates noted between 12 September 2008 (last banking day before the collapse of Lehman Brothers) and 10 October 2008 are played out using the current levels.
- Brexit: The scenario presents changes in interest rates and foreign exchange rates noted following the Brexit referendum on 23 June 2016 and 24 June 2016.

The current (daily) credit spread stress scenarios are:

- Parallel shifts: All credit spreads are shifted up and down by 100 basis points. The worst result of the two shifts is used for calculation purposes.
- Historical simulation of the collapse of the investment bank Lehman Brothers: The scenario assumes an immediate change in spreads based on the changes that occurred one working day before the collapse of the investment bank until four weeks after this date.

- Flight into government bonds: The scenario simulates a significantly visible aversion to risk that was previously seen in the markets. Spreads for riskier classes of paper widen while spreads for safer government bonds narrow.
- Euro-crisis: The scenario is calculated using historically determined spread changes that took place between 1 October 2010 and 8 November 2011 to replicate the development of credit spreads.
- Covid-19 pandemic scenario: the scenario is calculated using historically determined spread changes that took place between 28 February 2020 (the day before the pandemic) and 18 March 2020 (the day when the highest spreads were recorded).

Furthermore, additional stress tests / scenarios are calculated quarterly and distributed as a separate report. These reports include, in particular, inverse stress tests, a bank-wide macro-economic scenario and effects arising from adjusting the parameters in the model used to present premature repayments.

In accordance with the requirements of Art. 448 letter b CRR the following tables 32 to 34 show the interest rate risk in MünchenerHyp's banking book. The table "Present value interest rate risk in the banking book by currency" shows the change in the present values of the banking book broken down by currency in the case of the regulatory standard test. Analogous to this, the table 33 shows the changes in the net interest income by currency. In each case, a parallel shift of the yield curves of all currencies by + / – 200 bp is simulated. Table 34 shows the change in the net present value and the net interest income of the banking book according to the interest rate scenarios specified by the EBA guidelines EBA/ GL / 2018 / 02 for determining the early warning indicator.

TABLE 33: PRESENT VALUE INTEREST RATE RISK IN THE BANKING BOOK BY CURRENCY

	Supervisory standard test by currencies	Present value change 31.12.2021		Present value change 31.12.2020	
		Increase in interest + 200 bp parallel	Decline in interest – 200 bp parallel	Increase in interest + 200 bp parallel	Decline in interest – 200 bp parallel
	EUR	– 121	21	– 83	20
1	USD	5	2	6	2
2	CHF	– 24	8	– 12	1
3	GBP	2	1	– 1	6
4	**Total**	**– 142**	**16**	**– 93**	**15**
5	Total capital (TC)	1,790	1,790	1,676	1,676
6	Present value change in % of total capital	– 7.92%	0.88%	– 6%	1%

TABLE 34: CHANGES IN NET INTEREST INCOME BY CURRENCY

		Change of net interest income 31.12.2021		Change of net interest income 31.12.2020	
		Increase in interest + 200 bp parallel	Decline in interest – 200 bp parallel	Increase in interest + 200 bp parallel	Decline in interest – 200 bp parallel
	EUR	29.7	– 9.4	1.6	– 1.4
1	USD	3.7	2.0	1.7	2.1
2	CHF	– 7.0	1.0	1.7	– 0.2
3	GBP	1.1	– 0.8	0.5	– 0.1
4	**Total**	**27.4**	**– 7.2**	**5.4**	**0.3**

TABLE 35: PRESENT VALUE INTEREST RATE RISK AND CHANGE IN NET INTEREST RESULT IN THE FIXED ASSETS BOOK

	Early warning indicators	Changes in net present value		Change in net interest income	
		31.12.2021	31.12.2020	31.12.2021	31.12.2020
1	Parallel shift upwards	– 130	– 88	27.4	5.4
2	Parallel shift downwards	16	15	– 7.2	0.3
3	Steepening	6	17	–	–
4	Flattering	– 36	– 23	–	–
5	Short-term shock upwards	– 40	– 69	–	–
6	Short-term shock downwards	17	15	–	–
7	Maximum	– 130	– 88	–	–
8	Regulatory Tier 1 Capital (T1)	1,747	1,633	–	–
9	Change in present value in % of core capital	– 7%	– 5%	–	–

The following table presents the components of own funds requirements under the standardised approach for market risk. Only interest rate risk arising from trading book positions (only futures) is of relevance for MünchenerHyp. MünchenerHyp currently does not hold any such positions. Furthermore, foreign exchange risks due to open foreign exchange positions in the bank book may occur. The value of these positions on 31 December 2021 was below the statutory bagatelle limit.

TABLE 36: EU MR1 – MARKET RISK UNDER THE STANDARDISED APPROACH

			a
			RWEAs
		Outright products	–
0010	1	Interest rate risk (general and specific)	–
0020	2	Equity risk (general and specific)	–
0030	3	Foreign exchange risk	20.2
0040	4	Commodity risk	–
		Options	–
0050	5	Simplified approach	–
0060	6	Delta-plus approach	–
0070	7	Scenario approach	–
0080	8	Securitisation (specific risk)	–
0090	**9**	**Total**	**20.2**

The Bank generally does not employ options for speculative purposes. Positions are usually entered into on an implied basis due to the debtors' option rights (e.g. the right to give legal notice of termination as per Article 489 of the German Civil Code – BGB) and are then secured by hedging transactions. Nevertheless, these risks are attentively monitored in the daily risk report as they are extensive because of the Bank's large loan portfolio.

No significant risk items exist in foreign currencies. MünchenerHyp's transactions outside of Germany are hedged against currency risks to the greatest extent possible and only margins involved in payment of interest are unhedged. No other underlying risks exist.

In addition to the Bank's investments, the commodities and stock risks for MünchenerHyp are only relevant within the scope of a special Union Investment fund, which can invest in commodities or stocks.

6.3 Risk Management Structure and Organisation

MünchenerHyp uses a limit system to manage market risks. This limit system is based on the VaR. The limits established for market-risk management are based on the ability to bear risk and on the Bank's earning potential, and are defined as shrinking limits: a negative annual performance reduces the available limit by the same negative performance amount, whereas positive performance does not raise the limit.

The VaR limitation is based on the books defined by MünchenerHyp in the context of operational management. Limit monitoring is integrated into the process of daily performance and risk measurement. Risk drivers of foreign currency interest curves and option volatility can be integrated into the VaR.

Currently, capital requirements solely exist for foreign exchange risks within the framework of market risk at MünchenerHyp.

6.4 Risk Mitigation and Hedging

We engage in hedging activities – interest rate and currency derivatives – in order to further reduce our risks and to hedge our business activities. We do not employ credit derivatives as a matter of principle. We only occasionally hedge individual loans or portfolios against counterparty risk. Asset swaps are used as micro-hedges at the level of larger individual positions. Structured fundamental transactions, such as callable securities, are hedged accordingly with structured asset swaps. Interest-currency swaps are used to hedge exchange rate risks in transactions involving foreign currencies. Interest rate swaps are the primary hedging instruments used at the portfolio level. Bermudan options on interest swaps (swaptions), swaps and interest rate options (caps and floors) are used as macro-hedges for embedded legal termination rights or for agreements limiting interest rates.

6.5 Risk Reports and Management Information Systems

The market risk value-at-risk, as well as the market risk stress tests, are determined and reported on every Munich banking day. The market risk limits are monitored every Munich banking day and reported within the context of the performance and risk calculation. The Market Risk Management department is responsible for the preparation, coordination and distribution of the reports, which are distributed to the Treasury Department, the Head of Risk Control , the Board of Management and the Supervisory Board (quarterly).

If a limit is exceeded, a report is prepared pursuant to the escalation procedure and submitted by the Market Risk Management department to the entire Board of Management and to the Heads of Risk Control, Treasury and the Audit department.

7 LIQUIDITY RISK

Among other disclosures, content points 3.2 and 7 above, present the statement of MünchenerHyp's Board of Management regarding the appropriateness of the liquidity risk management agreements, as well as the statement concerning liquidity risk.

7.1 Containment

Liquidity risk involves the following risks:

- inability to fulfil payment obligations when they become due (liquidity risk in the narrow sense),
- inability to procure sufficient liquidity when needed at anticipated conditions (refinancing risk), or
- inability to terminate, extend or close out a transaction, or only be able to do so at a loss, due to insufficient market depth or market turbulence (market liquidity risk).

7.2 Regulatory Information (qualitative)

Disclosure guidelines for the liquidity coverage ratios require qualitative information on liquidity risk management to be disclosed in a table. In order to make the information more readable, the comments are extensively presented in continuous text and not directly in the table. For this reason, the tables contain references to the relevant chapters.

TABLE 37: TABLE ON QUALITATIVE / QUANTITATIVE INFORMATION OF LIQUIDITY RISK IN ACCORDANCE WITH ARTICLE 435 (1) OF REGULATION (EU) 575 / 2013

Description	Reference
Strategies and processes in the management of liquidity risk	7.3
Structure and organisation of the liquidity risk management function (authority, statute, other arrangements)	7.4
Scope and nature of liquidity risk reporting and measurement systems	7.6
Policies for hedging and mitigating the liquidity risk and strategies, and processes for monitoring the continuing effectiveness of hedges and mitigants	7.6
A declaration approved by the management body on the adequacy of liquidity risk management arrangements of the institution providing assurance that the liquidity risk management systems put in place are adequate with regard to the institution's profile and strategy	7
A concise liquidity risk statement approved by the management body succinctly describing the institution's overall liquidity risk profile associated with the business strategy. This statement shall include key ratios and figures (other than those already covered in Annex II of these guidelines) providing external stakeholders with a comprehensive view of the institution's management of liquidity risk, including how the liquidity risk profile of the institution interacts with the risk tolerance set by the management body	7

7.3 Strategies and Processes

MünchenerHyp has classified liquidity risk as a significant risk requiring monitoring and management by means of regular and appropriate stress testing for liquidity risk. In addition, an early warning forecasting system is also in place to identify potential problems by anticipating key figures for the coming week, as well as forecasting end-of-month figures for the next three months.

TABLE 38: EU LIQ1 – QUANTITATIVE INFORMATION OF LCR

		a	b	c	d	e	f	g	h
		Total unweighted value (average)				Total weighted value (average)			
EU 1a	Quarter ending on (DD Month YYY)	31.12.21	30.09.21	30.06.21	31.03.21	31.12.21	30.09.21	30.06.21	31.03.21
EU 1b	Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
HIGH-QUALITY LIQUID ASSETS									
1	Total high-quality liquid assets (HQLA)					2,296	2,091	1,961	1,776
CASH – OUTFLOWS									
2	Retail deposits and deposits from small business customers, of which:	85	101	73	52	9	10	7	5
3	Stable deposits	–	–	–	–	–	–	–	–
4	Less stable deposits	85	101	73	52	9	10	7	5
5	Unsecured wholesale funding	587	534	614	692	521	497	576	640
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	–	–	–	–	–	–	–	–
7	Non-operational deposits (all counterparties)	237	226	249	281	172	190	211	229
8	Unsecured debt	350	307	365	411	350	307	365	411
9	Secured wholesale funding					–	–	–	–
10	Additional requirements	2,696	2,699	2,594	2,503	361	363	351	343
11	Outflows related to derivative exposures and other collateral requirements	223	226	220	218	223	226	220	218
12	Outflows related to loss of funding on debt products	–	–	–	–	–	–	–	–
13	Credit and liquidity facilities	2,473	2,473	2,374	2,285	137	137	131	125
14	Other contractual funding obligations	193	192	172	206	169	168	149	183
15	Other contingent funding obligations	53	–	–	–	5	–	–	–
16	TOTAL CASH OUTFLOWS					1,065	1,039	1,083	1,171

Table 38 continued on page 86

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TABLE 38: EU LIQ1 – QUANTITATIVE INFORMATION OF LCR

		a	b	c	d	e	f	g	h
		Total unweighted value (average)				Total weighted value (average)			
CASH – INFLOWS									
17	Secured lending (e.g. reverse repos)	–	–	–	–	–	–	–	–
18	Inflows from fully performing exposures	215	202	202	233	138	131	140	160
19	Other cash inflows	269	310	270	284	268	309	270	284
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					–	–	–	–
EU-19b	(Excess inflows from a related specialised credit institution)					–	–	–	–
20	TOTAL CASH INFLOWS	484	512	472	517	407	441	410	445
EU-20a	Fully exempt inflows	–	–	–	–	–	–	–	–
EU-20b	Inflows subject to 90% cap	–	–	–	–	–	–	–	–
EU-20c	Inflows subject to 75% cap	484	512	472	517	407	441	410	445
TOTAL ADJUSTED VALUE									
EU-21	LIQUIDITY BUFFER					2,296	2,091	1,961	1,776
22	TOTAL NET CASH OUTFLOWS					658	607	682	735
23	LIQUIDITY COVERAGE RATIO					443%	403%	361%	287%

TABLE 39: TEMPLATE ON QUALITATIVE INFORMATION ON LCR, WHICH COMPLEMENTS THE LCR DISCLOSURE TEMPLATE

Description	Reference
Concentration of funding and liquidity sources	7.5.1
Derivative exposures and potential collateral calls	7.5.2
Currency mismatch in the LCR	7.5.3
A description of the degree of centralisation of liquidity management and interaction between the group's departments	Not relevant
Other items in the LCR calculation that are not captured in the LCR disclosure template but that the institution considers relevant for its liquidity profile	Not relevant

With the coming into force of the CRR, the requirements of MaRisk were expanded by two additional regulatory ratios. The Liquidity Coverage Ratio (LCR) is designed to ensure that financial institutions have sufficient short-term liquidity to cover their obligations over a 30-day period. On the other hand, the Net Stable Funding Ratio (NSFR) is focused on structural liquidity.

In addition, financial institutions must employ a process to provide an early warning of liquidity requirements to enable a financial gap to be recognised in a timely manner. This is intended to ensure that refinancing can take place at all times.

MünchenerHyp has always taken liquidity risk into consideration in its business and risk strategies. In order to comply with all of the regulatory and internal requirements, MünchenerHyp distinguishes between operative liquidity disposition and short- and mid-term liquidity risk management pursuant to MaRisk BTR 3.2 to ensure payment capability, and medium-term structural liquidity planning (MaRisk BTR 3.1), which is also the equivalent of the economic ILAAP. In addition, these requirements are extended in the normative ILAAP to include compliance with the regulatory ratios of the LCR and NSFR. In order to be able to identify potential problems on a timely basis, forecasts of the key figures LCR and NSFR are calculated in addition to the date-of-record ratios. A ratio of 100 % must be observed for the LCR since 1 January 2018, which MünchenerHyp was able to maintain at all times without any problem. Since 30 June 2021, a ratio of 100 percent must be maintained for the NSFR. In view of the favourable recognition of loans in the cover pools, this minimum ratio will be significantly exceeded.

The goal of operative liquidity disposition is to ensure that the Bank can fulfil its proper payment obligations in full in a timely manner. The relevant strategies and processes for operational liquidity controls are presented in the Treasury Handbook.

The central content of short- and medium-term liquidity risk management according to MaRisk is the preparation of a capital flow statement under various scenario assumptions. For these, the extent to which the Bank's own liquidity requirements are covered over time is checked. For this purpose, the capital maturity statement is compared with the various methods for generating additional liquidity (liquidity coverage potential), for example the sale of assets. Various parameter settings are used to calculate different (stress) scenarios in order to meet the scenario considerations required by MaRisk:

- Base case (management scenario)
- Bank stress
- Market stress
- Combined stress (MaRisk scenario)
- Combined stress without future refinancing measures
- Bank-wide macroeconomic scenario (quarterly)

Over a longer observation period, additional modelling assumptions, which are not decisive factors for managing short-term liquidity, are also taken into account. These are, for example, new business plans or current expenses such as salaries and taxes.

The following key liquidity figures are viewed as components for determining results across all due dates:

- Historic course of minimal overhang
- Point in time of theoretical insolvency
- Capital maturity statement
- Potential liquidity coverage as well as its composition
- Additional detailed data for planning and control activities

7.4 Risk Management Structure and Organisation

In order to keep refinancing risks as low as possible, MünchenerHyp strives to refinance loans with closely matching maturities and manages any deviations. The Bank continuously checks if its relevant refinancing sources (above all, those within the Cooperative Financial Network) remain available. In order to limit market liquidity risks in its business with public-sector borrowers and banks, MünchenerHyp primarily acquires securities that are acceptable as collateral by the European Central Bank and which can be used for open market business at any time. Investments in less liquid bonds, such as mortgage-backed securities (MBS), are no longer being made.

The limitation of liquidity risks takes place using short- and mid-term term liquidity risk management pursuant to MaRisk. Because liquidity management for a Pfandbrief bank is closely linked to the cover requirements for Pfandbriefe, the results of the cover calculation are taken into account when calculating liquidity risk.

The objective of limiting liquidity risks is to secure short-, mid- and long-term liquidity, and to prevent structural liquidity gaps. Short- and mid-term liquidity risks are limited using short- and mid-term liquidity risk management pursuant to MaRisk and the LiqV figure. In the context of liquidity risk management pursuant to MaRisk, a four-level limit is defined in accordance with the stress scenarios required by MaRisk. The limit consists of green, yellow, orange and red zones that define the respective time periods up to the (theoretical) inability to fulfil payment obligations.

In addition, an escalation process exists and is activated if a limit is exceeded or in the event of poor market liquidity (based on early warning indicators). When a limit is exceeded, the causes are first clarified. Next, a plan is prepared for the funding mix to cover the increased liquidity needs. The exceeded limit and the corresponding solution are communicated to the respective Board of Management members responsible for the affected areas, and to the heads of the Risk Control, Treasury, and Internal Audit departments.

7.5 Qualitative Information Related to LCR

1. Concentration of funding and liquidity source

As a capital market oriented Pfandbriefbank, MünchenerHyp funding sources are heavily focused on Pfandbriefe. As stated in Chapter 7.6, the resulting risk is actively mitigated to the greatest extent possible within the context of the available possibilities.

2. Derivative positions and potential collateral requirements

MünchenerHyp employs derivatives solely as hedges against interest rate risks in its lending and funding business. Potential collateral requirements are taken into account in accordance with regulatory requirements using the historical look-back approach.

3. Currency mismatches in the LCR

Almost all of the highly liquid assets used to cover short-term liquidity requirements in the LCR are denominated in euros. This is, however, viewed as sufficient as a relevant liquidity risk only exists in CHF, which is significantly smaller in comparison to EUR positions. This means that the necessary conversion from EUR into CHF can take place at any time via derivative transactions. The reason behind the liquidity gap in CHF is the fact that a portion of funding for the CHF business takes place in euros. In order to close this gap greater emphasis was placed on direct refinancing in CHF in recent years. As a result, the volume of long-term issues denominated in CHF rose to about CHF 3.75 billion.

Beyond this, currency mismatches are an element in regular reports.

7.6 Risk Mitigation and Hedging

MünchenerHyp strives to make its funding as diversified as possible at all times by placing a mix of Pfandbriefe, uncovered long-term bank titles and various money-market instruments on the market. At the same time, we try to obtain refinancing with matching maturities in order to limit the respective funding gaps.

The Treasury department has an emergency plan that will be implemented during times of reduced liquidity.

7.7 Risk Reports and Management Information Systems

Liquidity risk reports for liquidity risk management pursuant to MaRisk and the LCR, as well as the related forecasts, are prepared and reported on a weekly basis. The frequency of reporting can also be increased to a daily basis if needed. Liquidity Risk Controlling is responsible for preparing, coordinating, monitoring and distribution of the reports. The Treasury department is responsible for daily management of operational liquidity and the related necessary evaluations. The liquidity risk reports are distributed to:

- The Supervisory Board (short-term and structural liquidity risks, as well as LCR / NSFR on a quarterly basis)
- Board of Management (short-term and structural liquidity risks, and LCR on a weekly basis, as well as NSFR on a monthly basis)
- Head of Risk Control (short-term and structural liquidity risks, as well as LCR / NSFR, weekly and ad hoc)
- Treasury department (short-term and structural liquidity risks, and LCR on a weekly basis and ad hoc)

The liquidity risk limit is monitored at least on a weekly basis and reported within the respective liquidity risk reports. Liquidity Risk Controlling is responsible for monitoring the liquidity risk limit. The utilisation of the liquidity risk limit is reported to the following recipients:

- The Supervisory Board (quarterly)
- Board of Management (weekly)
- Head of Risk Control (weekly)
- Treasury department (weekly)

TABLE 40: EU LIQ2 – NET STABLE FUNDING RATIO

		a	b	c	d	e
		Unweighted value by residual maturity				
(in currency amount)		No maturity	< 6 months	6 months to < 1yr	≥ 1yr	Weighted value
Available stable funding (ASF) Items						
1	Capital items and instruments	1,747.0	0.2	2.4	40.5	1,787.6
2	Own funds	1,747.0	0.2	2.4	40.5	1,787.6
3	Other capital instruments		–	–	–	–
4	Retail deposits		–	–	–	–
5	Stable deposits		–	–	–	–
6	Less stable deposits		–	–	–	–
7	Wholesale funding:		3,152.1	2,814.4	42,858.1	44,459.4
8	Operational deposits		–	–	–	–
9	Other wholesale funding		3,152.1	2,814.4	42,858.1	44,459.4
10	Interdependent liabilities		–	–	–	–
11	Other liabilities:	–	487.3	–	–	–
12	NSFR derivative liabilities	–				
13	All other liabilities and capital instruments not included in the above categories		487.3	–	–	–
14	**Total available stable funding (ASF)**					**46,247.0**
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)					904.3
EU-15a	Assets encumbered for a residual maturity of one year or more in a cover pool		419.0	647.0	30,607.3	26,922.3
16	Deposits held at other financial institutions for operational purposes		–	–	–	–

Table 40 continued on page 90

Table 40 continued from page 89

TABLE 40: EU LIQ2 – NET STABLE FUNDING RATIO

		a	b	c	d	e
		Unweighted value by residual maturity				
(in currency amount)		No maturity	< 6 months	6 months to < 1yr	≥ 1yr	Weighted value
17	Performing loans and securities:		662.1	939.4	14,493.2	13,409.7
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut		0	0	0	0
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions		0	0	0	0
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:		127.1	328.7	2,204.9	2,179.7
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		1.4	20.3	30.6	34.6
22	Performing residential mortgages, of which:		370.5	541.1	7,142.6	6,018.4
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		309.6	455.1	3,024.4	2,510.7
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products		164.5	69.6	5,195.7	5,211.6
25	Interdependent assets		0.0	0.0	0.0	0.0
26	Other assets:	0.0	136.1	2.1	426.0	600.1
27	Physical traded commodities				0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs			1,261.2		63.1
29	NSFR derivative assets			21.4		21.4
30	NSFR derivative liabilities before deduction of variation margin posted			0		0
31	All other assets not included in the above categories		73.8	2.3	391.9	515.6
32	Off-balance sheet items		3,315.2	505.5	1,306.6	258.4
33	**Total RSF**					**42,094.8**
34	**Net Stable Funding Ratio (%)**					**109.86%**

8 OPERATIONAL RISKS

8.1 Containment

Operational risks refers to possible losses caused by personal misconduct, weaknesses in procedural or project management, technical failure or negative outside influences. Personal misconduct also includes unlawful actions, improper sales practices, unauthorised actions and transaction errors. Accordingly, legal risks are included under operational risks.

8.2 Strategies and Processes

MünchenerHyp minimises its operational risks by qualifying its employees, by using transparent procedures, automating standard procedures, and by having fixed working instructions, comprehensive functional testing, as well as appropriate emergency plans and preventive measures.

MünchenerHyp has established a programme to manage its operational risks. This programme is documented in the Operational Risk Handbook and is based on three pillars:

- Periodic self-assessment for the purpose of determining, evaluating and examining all potential risks
- Operation of a complete loss database (including what are known as "near misses")
- Establishment of an early warning system with the help of risk indicators

MünchenerHyp uses a self-assessment method as an ex ante procedure to record and evaluate potential operational risks within the Bank. The risk officer in each department estimates the frequency of occurrence and evaluates the possible damages in terms of their financial dimensions. In this procedure, the classification of operational risks (loss events) is based on legal recommendations and represents minimum content for the annually conducted self-assessment. The result is taken into consideration when assessing risk-bearing capacity. In addition, for supervisory purposes, the basic indicator approach is used to determine operational risk.

8.3 Risk Management Structure and Organisation

It is mandatory to use a standard form to document in detail operational risks that have materialised. The completed form must then be submitted to the Operational Risk Coordinator. This statement must also include potential countermeasures to prevent a recurrence. The Board of Management is informed immediately of any significant losses. This is communicated to the Supervisory Board within the framework of MaRisk reporting. The basic indicator approach is used for capital backing of operational risks. The required capital is calculated as a fixed percentage (15%) of the three-year average of gross income.

8.4 Risk Mitigation and Hedging

MünchenerHyp has purchased appropriate insurance policies to cover certain kinds of operational risks. These include, for example, financial loss liability insurance, fidelity insurance including cover for hacker losses, and supplementary cyber insurance. The insurance coverage is regularly compared with the risks reported by the specialist departments as part of their self-assessment process.

8.5 Risk Reports and Management Information Systems

The Board of Management and the Supervisory Board are also informed on a quarterly basis about operational risks within the context of the MaRisk Report. A separate OpRisk report is prepared twice a year. This also includes an updated evaluation of risks based on the self-assessment that is prepared at least once a year. Pursuant to the terms of MaRisk, additional potential operational risks noted during the year are reported in the comprehensive risk report. Important risks are addressed to the Board of Management immediately. The Risk Control department is responsible for preparing, coordinating and distributing the reports, which are regularly distributed to the Supervisory Board and the Board of Management.

TABLE 41: EU OR1 – OPERATIONAL RISK OWN FUNDS REQUIREMENTS AND RISK-WEIGHTED EXPOSURE AMOUNTS

		a	b	c	d	e
		Relevant indicator				
Banking activities		Year-3	Year-2	Last year	Own funds requirement	Total operational risk-weighted exposure amount
1	Banking activities subject to basic indicator approach (BIA)	206.2	240.9	275.3	36.1	451.5
2	Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches					
3	Subject to TSA:					
4	Subject to ASA:					
5	Banking activities subject to advanced measurement approaches AMA					

9 INVESTMENT RISK

MünchenerHyp's investments are solely made for strategic reasons within the Cooperative Financial Network. As the investments are kept in the banking book, an annual review is carried out to determine any permanent reduction in value. If such a reduction occurs, it is written off at current fair value. MünchenerHyp's investments are mainly strategic investments in the Volksbank and Raiffeisen cooperative network, which are accounted with a carrying amount of EUR 102.7 million.

In addition, there are investments in the subsidiaries M-Wert GmbH, Immobilienservice GmbH der Münchener Hypothekenbank eG (M-Service), M-4tec GmbH and Nußbaumstraße GmbH & Co. KG.

All of these investments are kept in the banking book. Investments are also held as indirectly positions in a special fund, which is also allocated to the Bank's banking book. For this special fund, the transparency approach pursuant to Article 132a (1) CRR is applied when determining the risk-weighted amounts.

The exposure value of MünchenerHyp's directly held investments amounted to EUR 206.7 million as at 31 December 2021. The investments are permanently taken out of the Internal Ratings Based Approach (IRBA) and allocated to the credit risk standardised approach. MünchenerHyp's investments are not a significant risk driver with regard to counterparty risks.

10 DERIVATIVE COUNTERPARTY RISK EXPOSURE AND NETTING POSITIONS

A limit system is used to restrict default risks for all of the counterparties carried in the Treasury area of business. In doing so, limits on counterparties and issuers are made on a case-by-case basis and are approved by the entire Board of Management after a presentation to, and vote by, the Markets and the Transaction Management departments. The basis for setting limits is an analysis of credit quality based on internal and external rating evaluations. Only banks, other financial institutions and insurance companies domiciled in OECD countries are accepted as counterparties for derivative deals. The risk-bearing capacity calculation encompasses the risks of counterparty default and the risk of a change in the credit rating arising from derivative transactions.

After netting, derivatives are offset against the counterparty limit using their market values plus add-on. The limit is monitored on a daily basis. In the event that the limit is exceeded, the entire Board of Management is informed immediately. Furthermore, a monitoring list is provided to the entire Board of Management on a monthly basis. The creditworthiness of counterparties and the limits are examined at least once a year. In creating offset agreements (netting), MünchenerHyp orients itself according to standard market practices.

Within the framework of collateral agreements made to additionally secure net derivative positions, only cash deposits in euros are accepted as collateral. To a small extent, and depending on creditworthiness, some collateral agreements contain exempt amounts (in order to reduce the ongoing expense somewhat). These exempt amounts are not subject to being automatically adjusted in the event of changed credit ratings, so no liquidity risk arises because of additional funding obligations. In terms of internal risk management for the entire Bank, exposure for derivatives is taken into account using their market value plus add-on and taking netting agreements into account.

Market and counterparty risks are calculated separately at MünchenerHyp and then added conservatively, for example when determining risk-bearing abilities. Thus no diversification effects are recognised via correlations. MünchenerHyp uses the mark-to-market method to calculate the value of its positions for counterparty credit risk. Compensation effects from correlations are not taken into account in the calculations.

TABLE 42: EU CCR1– ANALYSIS OF CCR EXPOSURE BY APPROACH

			a	b	c	d	e	f	g	h
			Replacement cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre-CRM	Exposure value post-CRM	Exposure value	RWEA
0010	EU1	EU – Original Exposure Method (for derivatives)	–	–	–	1.40	–	–	–	–
0020	EU2	EU – Simplified SA-CCR (for derivatives)	–	–	–	1.40	–	–	–	–
0030	1	SA-CCR (for derivatives)	43.0	231.4	–	1.40	2,403.5	384.1	384.1	93.0
0040	2	IMM (for derivatives and SFTs)	–	–	–	–	–	–	–	–
0050	2a	Of which securities financing transactions netting sets	–	–	–	–	–	–	–	–
0060	2b	Of which derivatives and long settlement transactions netting sets	–	–	–	–	–	–	–	–
0070	2c	Of which from contractual cross-product netting sets	–	–	–	–	–	–	–	–
0080	3	Financial collateral simple method (for SFTs)	–	–	–	–	–	–	–	–
0090	4	Financial collateral comprehensive method (for SFTs)	–	–	–	–	–	–	–	–
0100	5	VaR for SFTs	–	–	–	–	–	–	–	–
0110	**6**	**Total**	**–**	**–**	**–**	**–**	**2,403.5**	**384.1**	**384.1**	**93.0**

Table 43 presents the own funds requirements for credit value adjustment as of 31 December 2021.

TABLE 43: EU CCR2 – CVA CAPITAL CHARGE

			a	b
			Exposure value	RWEA
0010	1	Total transactions subject to the Advanced method		
0020	2	(i) VaR component (including the 3× multiplier)	–	–
0030	3	(ii) stressed VaR component (including the 3× multiplier)	–	–
0040	4	Transactions subject to the Standardised method	206,8	247,7
0050	EU4	Transactions subject to the Alternative approach (Based on the Original Exposure Method)	–	–
0060	**5**	**Total transactions subject to own funds requirements for CVA risk**	**206,8**	**247,7**

MünchenerHyp does not enter into any transactions involving CDS as either a seller or buyer.

The following two tables disclose MünchenerHyp's CCR exposures as well as all the important parameters needed to calculate the respective own funds requirements. Each of the itemised risk positions shown are derivatives in terms of Annex II of the CCR, or repo transactions.

TABLE 44 EU CCR3 – STANDARDISED APPROACH – CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK

			Risk weight											
			a	b	c	d	e	f	g	h	i	j	k	l
Exposure classes			0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	Total exposure value
0010	1	Central governments or central banks	–	–	–	–	–	–	–	–	–	–	–	–
0020	2	Regional government or local authorities	0.0	–	–	–	–	–	–	–	–	–	–	0.0
0030	3	Public sector entities	–	–	–	–	–	–	–	–	–	–	–	–
0040	4	Multilateral development banks	–	–	–	–	–	–	–	–	–	–	–	–
0050	5	International organisations	–	–	–	–	–	–	–	–	–	–	–	–
0060	6	Institutions	177.3	–	–	–	–	–	–	–	–	–	–	177.3
0070	7	Corporates	–	–	–	–	–	–	–	–	0.0	–	–	0.0
0080	8	Retail	–	–	–	–	–	–	–	–	–	–	–	–
0090	9	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–	–	–	–	–	–	–
0100	10	Other items	–	–	–	–	–	–	–	–	–	–	–	–
0110	**11**	**Total exposure value**	**177.3**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**0.0**	**–**	**–**	**177.3**

TABLE 45: EU CCR4 – IRB APPROACH – CCR EXPOSURES BY PORTFOLIO AND PD SCALE

			a	b	c	d	e	f	g
		PD scale	Exposure value	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	RWEA	Density of risk weighted exposure amounts
0010	1	0,00 to < 0,15	152.7	0.08	20	45.00	2.5	52.6	34.48
0020	2	0.15 to < 0.25	31.7	0.18	2	45.00	2.5	18.7	59.12
0030	3	0.25 to < 0.50	0.1	0.35	1	45.00	2.5	0.0	82.28
0040	4	0.50 to < 0.75	22.3	0.50	1	45.00	2.5	21.6	96.52
0050	5	0.75 to < 2.50	–	–	–	–	–	–	–
0060	6	2.50 to < 10.00	–	–	–	–	–	–	–
0070	7	10.00 to < 100.00	–	–	–	–	–	–	–
0080	8	100.00 (Default)	–	–	–	–	–	–	–
0090	**9**	**Sub-total**	**206.8**	**0.14**	**24**	**45.00**	**2.5**	**93.0**	**44.97**

Since the bank reports counterparty credit risks exclusively to banks in the IRB approach, the publication of the total sheet for the EU CCR4 template is waived here.

The EU CCR6 and EU CCR8 tables are also not shown, since the Bank did not hold any positions.

TABLE 46: EU CCR5 – COMPOSITION OF COLLETERAL FOR CCR EXPOSURES

			a	b	c	d	e	f	g	h
			Collateral used in derivative transactions				Collateral used in SFTs			
			Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral	
		Collateral type	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
0010	1	Cash – domestic currency	–	1,049.0	–	1,286.5	–	–	–	–
0020	2	Cash – other currencies	–	–	–	–	–	–	–	–
0030	3	Domestic sovereign debt	–	–	–	–	–	–	–	–
0040	4	Other sovereign debt	–	–	–	–	–	–	–	–
0050	5	Government agency debt	–	–	–	–	–	–	–	–
0060	6	Corporate bonds	–	–	–	–	–	–	–	–
0070	7	Equity securities	–	–	–	–	–	–	–	–
0080	8	Other collateral	–	–	–	–	–	–	–	–
0090	**9**	**Total**	**–**	**1,049.0**	**–**	**1,286.5**	**–**	**–**	**–**	**–**

11 ASSET ENCUMBRANCES

The purpose of the presented asset encumbrances is to ensure cross-institutional uniformity in information for lenders and providers of unsecured or subordinate refinancing, and to serve as an indicator for vulnerability to refinancing problems. Encumbrances are defined as follows: An asset is deemed encumbered if it has been pledged or submitted as collateral or as additional security in another form based on an agreement, which is the reason why the institution cannot freely dispose of the asset. Assets assigned as collateral, which are subject to restriction regarding the withdrawal of the asset value, such as assets whose disposal or replacement by another asset are subject to approvals, are deemed encumbered in terms of the guidelines for the disclosure of encumbered and unencumbered assets dated 27 June 2014.

The asset encumbrance ratio (AE ratio) is calculated as the ratio from the encumbered assets and the sum of the institution's assets.

FORMULA 1: CALCULATION OF THE AE RATIO

$$\text{AE ratio} = \frac{\text{Encumbered assets}}{\text{Encumbered and unencumbered assets}}$$

11.1 Strategies and Processes

As a safety-oriented Pfandbrief issuer, a significant portion of MünchenerHyp's business strategy is focused on adding as many high-quality assets to its portfolio as possible that are eligible to serve as cover and can thus be used to underpin its own Pfandbrief issues. This leads to a high AE ratio, and is in keeping with the Bank's business strategy. In addition to encumbrances from the cover ratio between assets and Pfandbriefe, the following other significant sources of encumbrances are also noted in this context:

- Collateralisation of repurchase agreements
- Collateralisation of derivative transactions
- Collateralisation of open market transactions

11.2 Structure and Composition of the Encumbrance Ratio

Based on its business model, MünchenerHyp's AE ratio remained very constant between the disclosure dates at the end of 2020 and the end of 2021 between 76.8 and 77.4 percent. In accordance with Commission Delegated Regulation (EU) 2021/637, the amounts are shown as median values. These median values consist of the rolling end-of-quarter amounts for the previous twelve months and are determined by interpolation. The values shown in the following Tables 47 to 49 are stated as on this reporting date.

The level of the encumbrance ratio, in particular, highlights MünchenerHyp's unequivocal focus on safety compared to other business models as the Bank strives to minimise the volume of assets it takes in that cannot serve as cover for Pfandbriefe.

The following table shows the amount of encumbered and unencumbered assets by asset category in terms of the applicable financial reporting framework, in accordance with Template EU AE1 of Commission Delegated Regulation (EU) 2021/637. Encumbered assets in Table 47 are on-balance sheet assets that have either been pledged or transferred without being derecognised, or are encumbered in another manner, as well as collateral received that complies with requirements for recognition on the balance sheet of the assignment recipient in terms of the applicable financial reporting framework.

Pursuant to the individual COREP report, MünchenerHyp made entries in columns 030, 050, 080 and 100 in Table 47 disclosing asset values that are eligible for business dealings with the relevant central bank.

TABLE 47: EU AE1 – ENCUMBERED AND UNENCUMBERED ASSETS

		Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
			of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
010	Assets of the reporting institution	39,800.7	1,197.5	–	–	11,836.6	835.8	–	–
030	Equity instruments	–	–	–	–	147.0	–	147.0	–
040	Debt securities	5,712.0	1,197.5	5,891.8	1,366.7	937.3	835.8	1,045.3	940.2
050	of which: covered bonds	4,599.6	102.5	4,606.0	107.2	33.3	33.3	32.8	32.8
060	of which: securitisations	–	–	–	–	–	–	–	–
070	of which: issued by general governments	931.5	931.5	1,082.7	1,082.7	758.3	758.3	862.4	862.4
080	of which: issued by financial corporations	4,873.1	259.2	4,894.2	279.4	170.3	77.5	173.2	77.7
090	of which: issued by non-financial corporations	–	–	–	–	–	–	–	–
120	Other assets	33,958.3	–	–	–	10,794.8	–	–	–

Collateral received is shown below by asset category in accordance with Template AE2 of Commission Delegated Regulation (EU) 2021/637. Encumbered and unencumbered collateral in Template AE2 refers to collateral received that does not meet the requirements for recognition on the balance sheet of the assignment recipient in terms of the applicable financial reporting framework, and is therefore not shown on the balance sheet. Collateral received that is shown on the balance sheet is disclosed in Template AE1. MünchenerHyp does not take in such collateral.

TABLE 48: EU AE2 – COLLATERAL RECEIVED

		Fair value of encumbered collateral received or own debt securities issued		Unencumbered: Fair value of collateral received or own debt securities issued available for encumbrance	
			of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
130	Collateral received by the reporting institution	–	–	572.7	572.7
140	Loans on demand	–	–	–	–
150	Equity instruments	–	–	–	–
160	Debt securities	–	–	572.7	572.7
170	of which: covered bonds	–	–	265.4	265.4
180	of which: securitisations	–	–	–	–
190	of which: issued by general governments	–	–	279.0	279.0
200	of which: issued by financial corporations	–	–	273.0	273.0
210	of which: issued by non-financial corporations	–	–	20.2	20.2
220	Loans and advances other than loans on demand	–	–	–	–
230	Other collateral received	–	–	–	–
240	Own debt securities issued other than own covered bonds or securitisations	–	–	–	–
241	Own covered bonds and asset-backed securities issued and not yet pledged	–	–	–	–
250	**Total assets, collateral received and own debt securities issued**	**39,800.7**	**1,197.5**	**–**	**–**

Liabilities associated with encumbered assets and collateral received are disclosed in accordance with Template AE3 of Commission Delegated Regulation (EU) 2021/637. The surplus of encumbered assets shown in Table 49 primarily stems, in particular, from surplus cover held for Pfandbriefe in circulation.

TABLE 49: EU AE3 – SOURCES OF ENCUMBRANCE

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and securitisations encumbered
		010	030
010	Carrying amount of selected financial liabilities	36,682.2	39,640.6

12 REMUNERATION POLICY

12.1 Risk Taker Analysis

Pursuant to Article 16 of the Remuneration Regulation for Institutions (InstitutsVergV), MünchenerHyp must disclose information on its remuneration policy and practices. Disclosure requirements for MünchenerHyp as a CRR institution are governed by Article 450 CRR. The information on euro amounts in this chapter differ from the rest of the tables in this report; for a better overview, Tables 50 to 55 show the amounts as thousands with one decimal place.

Pursuant to this article, the Bank must disclose certain quantitative and qualitative information for employees (risk takers) whose activities have a substantial impact on the Bank's risk profile.

During the year 2020, the Bank identified twelve Supervisory Board members, three Board of Management members, 19 senior executives as well as 24 additional employees as risk takers pursuant to the Remuneration Regulation for Institutions; a total of 58 persons, which corresponds to approximately 9.4% of all employees. The risk takers were determined on the basis of the "Commission Delegated Regulation (EU) 2021/923 of 25 March 2021 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards with respect to qualitative and appropriate quantitative criteria to identify categories of staff whose professional activities have a material impact on an institution's risk profile."

12.2 Remuneration Across the Institution

The Remuneration Committee met two times in 2021.

No new hiring bonuses above the legally permissible allowances were granted. In addition, five severance payments were made, one of which was to a risk taker.

12.3 Remuneration System for the Board of Management

A target value for the discretionary bonuses is set in advance for every year. The definitive discretionary bonus can vary between 0% and 133%.

To calculate the bonus, quantitative and qualitative targets in the form of bank and individual targets are derived from the corporate strategy. The maximum bonus will only be paid if these targets are exceeded. The assessment period used will be at least three years.

Variable remuneration is paid out as follows:

- A sum of 50% of the achieved bonus is paid out over several years in cash, while the remaining 50% is invested in "other instruments" in terms of Article 52 or 63 CRR, which are linked to sustainable enterprise value, and consequently their value may fluctuate. These instruments are created specifically for the purpose of complying with the requirements of the Remuneration Regulation for Institutions, because MünchenerHyp is a cooperative and cannot implement the actual intention of a stock option.
- 20% of the achieved bonus is paid out directly in the following year following the approval of the annual financial statements and adoption by the Supervisory Board.
- The remaining 80% of the bonus defined for the preceding business year is paid out over a period of five years, whereby components invested in instruments are also subject to a one-year restriction lock-up period following the applicable vesting periods for the respective instruments.

Negative contributions to the Bank's success are taken into account at the time the bonus is calculated, and also during the entire vesting period. This may lead to a reduction or, in an extreme case, the complete loss of variable remuneration. Furthermore, a so-called "claw-back" rule for previously paid amounts is in place. The amount of the bonus cannot be increased over and beyond the originally defined amount; similarly, no write-ups are applied with regard to reduced payments that were made during the interim period. There is no legal claim to variable remuneration during the vesting and lock-up periods.

The Supervisory Board is responsible for defining the remuneration systems for the members of the Board of Management. The appropriateness of the remuneration systems is assured, in particular, by the Supervisory Board's Remuneration Committee.

12.4 Supervisory Board Remuneration System

The remuneration of the Supervisory Board consists of a fixed annual remuneration per member, differentiated according to chairman, deputy chairman or chairman of a committee. In addition, the members of the Supervisory Board receive an attendance fee for each Supervisory Board meeting or committee meeting they attend. No variable remuneration is granted.

12.5 Remuneration System for Risk Takers Below the Board of Management

The remuneration structure for risk takers below the Board of Management is determined by a contractually defined performance- and profit-oriented remuneration portion (target premium) in addition to the fixed salary.

An actively practiced target agreement process forms the basis for a transparent and understandable performance assessment and hence also for the definition of the individual performance factors. Managers and employees jointly agree on numerous individual targets towards the end of the year.

The target agreements should contain objectives from each of the following three categories:

- Operational profit and business targets
- Organisational and strategic objectives, and projects
- Personal development and management targets

The calculation of the performance bonus takes into account individual performance, as well as the performance of the Bank and the employee's own department. Amounts are determined based on the following factors:

	Individual factor	Department factor	Bank factor
Values	0.0–2.0	0.9–1.0	0.8–1.2
Determined by	Annual assessment interview with supervisor	Determined by Board of Management	Determined by Board of Management

The considerable range of the individual factor means that the employee plays a key role in determining the amount of the performance bonus, and may lose the entire bonus in case of misconduct, for example.

Once the target premium has been defined, the individual performance factor is calculated one year later during the assessment interview on the basis of target attainment. The department and bank factors are also determined by the Board of Management at the beginning of the following year.

The following formula is used to calculate the performance bonus:

FORMULA 2: CALCULATION OF THE PERFORMANCE BONUS

Performance bonus = target premium x individual factor x department factor x bank factor

The bonus is paid out pursuant to the terms of the Remuneration Regulation for Institutions, and is also liable to being blocked by BaFin in the future. If a risk taker (below the level of the Board of Management) receives more than € 50,000 in variable remuneration (currently the valid threshold pursuant to the BaFin's guidance), that person's bonus will be paid out over many subsequent years analogous to remuneration for the Board of Management. To date, this has not been necessary.

Due to restrictions in the remuneration system, variable remuneration can never exceed the fixed remuneration component. With regard to other non-cash benefits, risk takers receive the same as those received by other employees, such as subsidies for lunch or health care, supplemental insurance, or company cars, etc. In this context, each benefit in kind depends partly on the hierarchy level or duration of employment, although the criteria are identical for all employees.

The Board of Management is responsible for defining the remuneration system. Changes to the business strategy will result in reviews to determine if these changes require the remuneration system to be adjusted.

The appropriateness of the remuneration systems is monitored by the Supervisory Board's Remuneration Committee in collaboration with the Remuneration Officer.

TABLE 50: EU REMA – REMUNERATION POLICY

Qualitative disclosures

a)	**Remuneration governance**
	The bylaws of the Supervisory Board stipulate that the Remuneration Control Committee is to monitor the appropriate design of the remuneration systems and in doing so make recommendations to the Supervisory Board. The Remuneration Control Committee met twice in the past year. On the basis of the remuneration control report submitted to the committee, the Remuneration Control Committee reviews the appropriateness of the remuneration policy on an annual basis.
	No external consultants were engaged for remuneration issues in the past year.
	The Bank has established a remuneration strategy and, on this basis, remuneration systems that cover the remuneration of all employees, including the employees of all subsidiaries. The Bank's remuneration systems are in line with regulatory and legal requirements – in particular the Remuneration Regulation for Institutions (Institutsvergütungsverordnung). The Board of Management and the Supervisory Board are responsible for determining the remuneration system for the Board of Management. All remuneration systems and processes relevant to remuneration are understandable, documented and published. Care is taken to ensure a balanced relationship between the remuneration systems (collective wage agreement, employees exempt from collective wage agreement, executives, Board of Management, Supervisory Board). Maximization of remuneration is never possible at the expense of others.
	The Bank's risk takers are identified on the basis of all relevant laws and guidelines. The criteria set out therein are applied. The Bank's risk takers are all members of the Supervisory Board, the Board of Management, and executives. In addition, some executives in risk management, information security and credit processing have been identified as risk takers. In total, 8.6% of the Bank's employees were risk takers at the end of 2021. The option of excluding employees who were originally identified if certain conditions are met was not exercised.
b)	**Information on the design and structure of the remuneration system for identified employees.**
	The performance measurement criteria used to determine variable remuneration for all employees of the Bank are based on their personal target achievement levels as well as on a Bank Factor determined by the Board of Management, which reflects the economic success of the Bank in the previous year. An ex-ante and ex-post risk adjustment is only relevant for the remuneration of members of the Board of Management, as only their variable remuneration exceeds the amount of € 50,000. The risk adjustment is based on a consideration of performance over at least three years. The retained remuneration components due in each year are reviewed to determine whether their target achievement at that time still appears appropriate.
	No significant changes were made to the remuneration systems in the past year.
	Individual target agreements are concluded with all employees, including those in internal control functions. Individual target achievement determines the amount of variable remuneration. Although the Bank Factor is also applied to this group of employees, this only leads to a reduction or increase in variable remuneration by a maximum of one third. Furthermore, the focus of the remuneration of all employees, above all, those with internal control functions, is clearly on fixed remuneration. This ensures that remuneration is essentially independent of the business areas under their control.
	Guaranteed variable remuneration and severance payments are only granted in exceptional cases. The requirements of the Remuneration Regulation for Institutions (Institutsvergütungsverordnung) and the BaFin's interpretative guide are observed when determining such remuneration.
c)	The Bank's remuneration procedures do not create incentives to take excessive risks. Neither the criteria for assessment nor their effects on the amount of variable remuneration nor the proportion of variable remuneration in fixed remuneration are suitable for this purpose.
d)	The ratio between the fixed and variable remuneration components at MünchenerHyp is de facto a maximum of one-third and thus complies with the requirements of Article 94 (g) CRD.

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TABLE 50: EU REMA – REMUNERATION POLICY

Quantitative disclosure	
e)	The basis for the amount of variable remuneration for employees is the target bonus, personal target achievement and the Bank Factor. The target bonus is determined individually in the employment contract. The personal target achievement is determined on the basis of the individually agreed targets and ranges from 0% to 200%. The Bank Factor is set by the Board of Management at its reasonable discretion at between 80% and 120%. The decision is derived from key figures from the previous year's financial statements. The share of variable remuneration in total remuneration is between 3% and 21%. In absolute terms, all variable remuneration at the employee level is less than 50,000 euros.
	In the event of negative overall performance at MünchenerHyp, particularly if this is accompanied by an erosion of enterprise value, a value of 0 is set for the Bank Factor.
f)	The three previous financial years are taken into account when determining the discretionary bonus of the Board of Management. As the discretionary bonus generally exceeds 50,000 euros, the granting of the bonus is subject to the provisions of the Remuneration Regulation for Institutions. Accordingly, half of the bonus is granted in cash and the other half in instruments. Irrespective of this, only a total of 40% is granted in the first year, with the remainder being spread over five years. Following the retention period instruments will be blocked again for one year. All instruments granted are subject to performance during the retention and blocking periods. As MünchenerHyp is not a stock corporation, virtual instruments have been created whose value is measured by the development of the Bank's total present value.
	Every year the Remuneration Control Committee and the Supervisory Board discuss whether ex-post adjustments are required when granting tranches of variable remuneration that are due. If no new facts have become known that necessitate a reduction in the variable remuneration granted to date, the treatment of the tranches retained and due for payment is continued in accordance with the Remuneration Regulation for Institutions (InstitutsVergV).
g)	The variable remuneration of the Board of Management is measured on the basis of a target bonus and individual target achievement. Five bank targets are decisive for 70% of target achievement. These are: Increase in the Bank's total present value, achievement of new mortgage business, administrative expenses, operating profit after risk provisioning, and return on equity before taxes. For 30% of the target achievement, department-specific or individual targets are agreed with each member of the Board of Management. Other benefits in kind granted are not linked to performance and are therefore included in fixed remuneration. These include in particular expenses for the company pension plan.
h)	Individual amounts do not have to be published.
i)	No exemption under Article 94(3) CRD.
j)	Not applicable.

TABLE 51: EU REM1 – REMUNERATION AWARDED FOR FINANCIAL YEAR

			a	b	c	d
			MB Supervisory function	MB Management function	Other senior management	Other identified staff
1	Fixed remuneration	Number of identified staff	13	3	18	24
2		Total fixed remuneration	466.7	1,999.8	3,138.0	2,379.1
3		Of which: cash-based	466.7	1,681.5	3,023.8	2,344.8
4		(Not applicable in the EU)				
EU-4a		Of which: shares or equivalent ownership interests	–	–	–	–
5		Of which: share-linked instruments or equivalent non-cash instruments	–	–	–	–
EU-5x		Of which: other instruments	–	–	–	–
6		(Not applicable in the EU)				
7		Of which: other forms	–	318.3	114.2	34.4
8		(Not applicable in the EU)				
9	Variable remuneration	Number of identified staff	13	3	18	24
10		Total variable remuneration	–	603.7	615.4	334.2
11		Of which: cash-based	–	318.5	615.4	334.2
12		Of which: deferred	–	171.1	–	–
EU-13a		Of which: shares or equivalent ownership interests	–	285.2	–	–
EU-14a		Of which: deferred	–	171.1	–	–
EU-13b		Of which: share-linked instruments or equivalent non-cash instruments	–	–	–	–
EU-14b		Of which: deferred	–	–	–	–
EU-14x		Of which: other instruments	–	–	–	–
EU-14y		Of which: deferred	–	–	–	–
15		Of which: other forms	–	–	–	–
16		Of which: deferred	–	–	–	–
17	**Total remuneration (2 + 10)**		**466.7**	**2,603.5**	**3,753.4**	**2,713.4**

TABLE 52: EU REM2 – SPECIAL PAYMENTS TO STAFF WHOSE PROFESSIONAL ACTIVITIES HAVE A MATERIAL IMPACT ON ISTITUTIONS' RISK PROFILE (IDENTIFIED STAFF)

		a	b	c	d
		MB Supervisory function	MB Management function	Other senior management	Other identified staff
	Guaranteed variable remuneration awards				
1	Guaranteed variable remuneration awards – Number of identified staff	–	1	–	–
2	Guaranteed variable remuneration awards – Total amount	–	33.3	–	–
3	Of which guaranteed variable remuneration awards paid during the financial year, that are not taken into account in the bonus cap	–	–	–	–
	Severance payments awarded in previous periods, that have been paid out during the financial year				
4	Severance payments awarded in previous periods, that have been paid out during the financial year – Number of identified staff	–	–	–	–
5	Severance payments awarded in previous periods, that have been paid out during the financial year – Total amount	–	–	–	–
	Severance payments awarded during the financial year				
6	Severance payments awarded during the financial year – Number of identified staff	–	–	1	–
7	Severance payments awarded during the financial year – Total amount	–	–	41.6	–
8	Of which paid during the financial year	–	–	41.6	–
9	Of which deferred	–	–	–	–
10	Of which severance payments paid during the financial year, that are not taken into account in the bonus cap	–	–	–	–
11	Of which highest payment that has been awarded to a single person	–	–	41.6	–

TABLE 53: EU REM3 – DEFERRED REMUNERATION

		a	b	c	d	e	f	EU – g	EU – h
	Deferred and retained remuneration	Total amount of deferred remuneration awarded for previous performance periods	Of which due to vest in the financial year	Of which vesting in subsequent financial years	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in the financial year	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in future performance years	Total amount of adjustment during the financial year due to ex post implicit adjustments (i.e.changes of value of deferred remuneration due to the changes of prices of instruments)	Total amount of deferred remuneration awarded before the financial year actually paid out in the financial year	Total of amount of deferred remuneration awarded for previous performance period that has vested but is subject to retention periods
1	MB Supervisory function	–	–	–	–	–	–	–	–
2	Cash-based	–	–	–	–	–	–	–	–
3	Shares or equivalent ownership interests	–	–	–	–	–	–	–	–
4	Share-linked instruments or equivalent non-cash instruments	–	–	–	–	–	–	–	–
5	Other instruments	–	–	–	–	–	–	–	–
6	Other forms	–	–	–	–	–	–	–	–
7	MB Management function	135.0	66.2	68.7	–	–	137.5	66.2	68.7
8	Cash-based	66.2	66.2	–	–	–	–	66.2	–
9	Shares or equivalent ownership interests	69.7	–	68.7	–	–	137.5	–	68.7
10	Share-linked instruments or equivalent non-cash instruments	–	–	–	–	–	–	–	–
11	Other instruments	–	–	–	–	–	–	–	–
12	Other forms	–	–	–	–	–	–	–	–
13	Other senior management	–	–	–	–	–	–	–	–
14	Cash-based	–	–	–	–	–	–	–	–

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TABLE 53: EU REM3 – DEFERRED REMUNERATION

		a	b	c	d	e	f	EU – g	EU – h
	Deferred and retained remuneration	Total amount of deferred remuneration awarded for previous performance periods	Of which due to vest in the financial year	Of which vesting in subsequent financial years	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in the financial year	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in future performance years	Total amount of adjustment during the financial year due to ex post implicit adjustments (i.e.changes of value of deferred remuneration due to the changes of prices of instruments)	Total amount of deferred remuneration awarded before the financial year actually paid out in the financial year	Total of amount of deferred remuneration awarded for previous performance period that has vested but is subject to retention periods
15	Shares or equivalent ownership interests	–	–	–	–	–	–	–	–
16	Share-linked instruments or equivalent non-cash instruments	–	–	–	–	–	–	–	–
17	Other instruments	–	–	–	–	–	–	–	–
18	Other forms	–	–	–	–	–	–	–	–
19	Other identified staff	–	–	–	–	–	–	–	–
20	Cash-based	–	–	–	–	–	–	–	–
21	Shares or equivalent ownership interests	–	–	–	–	–	–	–	–
22	Share-linked instruments or equivalent non-cash instruments	–	–	–	–	–	–	–	–
23	Other instruments	–	–	–	–	–	–	–	–
24	Other forms	–	–	–	–	–	–	–	–
25	**Total amount**	**135.0**	**66.2**	**68.7**	**–**	**–**	**137.5**	**66.2**	**68.7**

TABLE 54: EU REM4 – REMUNERATION OF 1 MILLION EUR OR MORE PER YEAR

	EUR	Identified staff that are high earners as set out in Article 450(i) CRR
1	1,000,000 to below 1,500,000	1
2	1,500,000 to below 2,000,000	–
3	2,000,000 to below 2,500,000	–
4	2,500,000 to below 3,000,000	–
5	3,000,000 to below 3,500,000	–
6	3,500,000 to below 4,000,000	–
7	4,000,000 to below 4,500,000	–
8	4,500,000 to below 5,000,000	–
9	5,000,000 to below 6,000,000	–
10	6,000,000 to below 7,000,000	–
11	7,000,000 to below 8,000,000	–

TABLE 55: EU REM5 – INFORMATION ON REMUNAERATION OF STAFF WHOSE PROFESSIONAL ACTIVITIES HAVE A MATERIAL IMPACT ON ISTITUTIONS' RISK PROFILE (IDENTIFIED STAFF)

		a	b	c	d	e	f	g	h	i	j
		Management body remuneration			Business areas						
		MB Supervisory function	MB Management function	Total MB	Investment banking	Retail banking	Asset management	Corporate functions	Independent internal control functions	All other	Total
1	Total number of identified staff										58
2	Of which: members of the MB	13	3	16							
3	Of which: other senior management				2	7	–	6	3	–	
4	Of which: other identified staff				–	19	–	1	4	–	
5	Total remuneration of identified staff	466.7	2,603.5	3,070.2	505.7	3,777.0	–	1,181.5	1,002.5	–	
6	Of which: variable remuneration	–	603.7	603.7	69.4	539.7	–	192.6	148.0	–	
7	Of which: fixed remuneration	466.7	1,999.8	2,466.5	436.3	3,237.3	–	989.0	854.6	–	

13 LEVERAGE

13.1 Containment and Structure

Pursuant to Article 429 CRR, institutions have to calculate a leverage ratio to increase transparency and comparability. The leverage ratio is calculated as the capital measure divided by the total exposure measure and is expressed as a percentage.

The leverage ratio is defined as follows:

FORMULA 3: CALCULATION OF THE LEVERAGE RATIO

$$\text{Leverage ratio} = \frac{\text{Tier 1 Capital}}{\text{Total exposure measure}}$$

For the purposes of Article 429 CRR, the capital measure shall be Tier 1 Capital. The total exposure measure consists of amounts shown as on-balance sheet assets, derivatives, securities financing transactions and off-balance sheet assets. The total exposure measure for assets (excluding derivatives and securities financing transactions) contains the balance sheet value of the individual positions, as well as regulatory adjustments for positions that are deducted to determine regulatory Tier 1 Capital. Derivatives are calculated using the total exposure measure of the leverage ratio based on the mark-to-market method for derivatives. The portfolio does not contain any credit derivatives. The total exposure measure for securities financing transactions is equal to the gross balance sheet values plus the assessment basis used for counterparty credit risk. The total exposure measure for off-balance sheet exposures is calculated while taking into consideration the conversion factors from the standardised approach for credit risk.

The following detailed information regarding the leverage ratio is hereby disclosed pursuant to Commission Implementing Regulation (EU) 2016/200 of 15 February 2016 laying down implementing technical standards with regard to the disclosure of the leverage ratio according to the terms of the CRR.

13.2 Quantification

As at 31 December 2020, MünchenerHyp's leverage ratio was 3.59%. The reason for the difficulty in complying with a leverage ratio of at least 3% is that the leverage ratio does not take any risk weighting into consideration. As a result, the leverage ratio represents a special challenge for MünchenerHyp as its business model – financing property – focuses on the particularly low-risk retail area of business.

Changes in the observed ratio are continuously monitored and analysed.

In accordance with its business model, the Bank manages the required amount of own funds using the risk-weighted capital ratios as defined by the supervisory authorities and the risk-bearing capacities that must be observed.

Table LRSum presents the detailed reconciliation of MünchenerHyp's on-balance sheet assets as publicly published and exposures for the leverage ratio. The total exposure measure in the leverage ratio is presented in Table LRCom. MünchenerHyp's on-balance sheets exposures are presented in detail in Table LRSPL, in order to present the key components of the leverage ratio as well as the on-balance sheet exposures. Furthermore, Table LRQua describes the procedures used by MünchenerHyp to monitor the risk of excessive indebtedness, as well as factors that influenced the leverage ratio during the reporting period to which the disclosed leverage ratio refers.

13.3 Quantitative and Qualitative Disclosure of the Leverage Ratio as Shown in the Disclosure Tables

The following table presents the reconciliation of MünchenerHyp's on-balance sheet assets and exposures for the leverage ratio as at the 31 December 2020 date of record for the purposes of Article 451 para. 1 (b) CRR.

TABLE 56: SUMMARY RECONCILIATION OF ACCOUNTING ASSETS AND LEVERAGE RATIO EXPOSURES

Table LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

		Applicable amount
1	Total assets as per published financial statements	52,538.2
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory prudential consolidation	
3	(Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	
4	(Adjustment for temporary exemption of exposures to central banks (if applicable))	– 574.6
5	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the total exposure measure in accordance with point (i) of point (i) of Article 429a(1) CRR)	
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	
7	Adjustment for eligible cash pooling transactions	
8	Adjustments for derivative financial instruments	116.1
9	Adjustment for securities financing transactions (SFTs)	
10	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	2,514.4
11	(Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)	– 75.0
EU-11a	(Adjustment for exposures excluded from the total exposure measure in accordance with point (c) of Article 429a(1) CRR)	– 136.9
EU-11b	(Adjustment for exposures excluded from the total exposure measure in accordance with point (j) of Article 429a(1) CRR)	
12	Other adjustments	– 5,930.9
13	**Total exposure measure**	**48,451.3**

The following table presents the split of the leverage ratio total exposure measure of MünchenerHyp as at the 31 December 2021 date of reference as per Article 451 (1) (b) CRR.

TABLE 57: EU LR2 – LRCOM – LEVERAGE RATIO COMMON DISCLOSURE

		0010	0020
		CRR leverage ratio exposures	
		a	b
		31.12.2021	30.06.2021
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	47,175.4	45,673.0
2	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	–	–
3	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	– 1,267.6	– 1,404.9
4	(Adjustment for securities received under securities financing transactions that are recognised as an asset)	–	–
5	(General credit risk adjustments to on-balance sheet items)	– 75.0	– 70.3
6	(Asset amounts deducted in determining Tier 1 capital)	– 19.8	– 22.8
7	Total on-balance sheet exposures (excluding derivatives and SFTs)	45,813.0	44,175.0
	Derivative exposures		
8	Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	94.1	256.7
EU-8a	Derogation for derivatives: replacement costs contribution under the simplified standardised approach	–	–
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	385.1	335.3
EU-9a	Derogation for derivatives: Potential future exposure contribution under the simplified standardised approach	–	–
EU-9b	Exposure determined under Original Exposure Method	–	–
10	(Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	–	–
EU-10a	(Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	–	–
EU-10b	(Exempted CCP leg of client-cleared trade exposures) (original Exposure Method)	–	–
11	Adjusted effective notional amount of written credit derivatives	–	–
12	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	–	–
13	Total derivatives exposures	479.2	592.0

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TABLE 57: EU LR2 – LRCOM – LEVERAGE RATIO COMMON DISCLOSURE

		0010	0020
		CRR leverage ratio exposures	
		a	b
		31.12.2021	30.06.2021
	Securities financing transaction (SFT) exposures		
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	–	–
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	–	–
16	Counterparty credit risk exposure for SFT assets	–	–
EU-16a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429e(5) and 222 CRR	–	–
17	Agent transaction exposures	–	–
EU-17a	(Exempted CCP leg of client-cleared SFT exposure)	–	–
18	Total securities financing transaction exposures	–	–
	Other off-balance sheet exposures		
19	Off-balance sheet exposures at gross notional amount	5,127.3	4,829.6
20	(Adjustments for conversion to credit equivalent amounts)	– 2,612.9	– 2,462.0
21	(General provisions deducted in determining Tier 1 capital and specific provisions associated with off-balance sheet exposures)	–	–
22	Off-balance sheet exposures	2,514.4	2,367.6
	Excluded exposures		
EU-22a	(Exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)	– 355.3	– 392.1
EU-22b	(Exposures exempted in accordance with point (j) of Article 429a (1) CRR (on and off balance sheet))	–	–
EU-22c	(Excluded exposures of public development banks (or units) – Public sector investments)	–	–
EU-22d	(Excluded exposures of public development banks (or units) – Promotional loans): – Promotional loans granted by a public development credit institution – Promotional loans granted by an entity directly set up by the central government, regional governments or local authorities of a Member State – Promotional loans granted by an entity set up by the central government, regional governments or local authorities of a Member State through an intermediate credit institution)	–	–
EU-22e	(Excluded passing-through promotional loan exposures by non-public development banks (or units): – Promotional loans granted by a public development credit institution – Promotional loans granted by an entity directly set up by the central government, regional governments or local authorities of a Member State – Promotional loans granted by an entity set up by the central government, regional governments or local authorities of a Member State through an intermediate credit institution)	–	–
EU-22f	(Excluded guaranteed parts of exposures arising from export credits)	–	–

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TABLE 57: EU LR2 – LRCOM – LEVERAGE RATIO COMMON DISCLOSURE

		0010	0020
		CRR leverage ratio exposures	
		a	b
		31.12.2021	30.06.2021
EU-22g	(Excluded excess collateral deposited at triparty agents)	–	–
EU-22h	(Excluded CSD related services of CSD/institutions in accordance with point (o) of Article 429a(1) CRR)	–	–
EU-22i	(Excluded CSD related services of designated institutions in accordance with point (p) of Article 429a(1) CRR)	–	–
EU-22j	(Reduction of the exposure value of pre-financing or intermediate loans)	–	–
EU-22k	(Total exempted exposures)	– 355.3	– 392.1
	Capital and total exposure measure		
23	Tier 1 capital	1,747.0	1,671.7
24	Total exposure measure	48,451.3	46,742.5
	Leverage ratio		
25	Leverage ratio	3.61	3.58
EU-25	Leverage ratio (excluding the impact of the exemption of public sector investments and promotional loans) (%)	3.61	3.58
25a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves)	3.56	3.53
26	Regulatory minimum leverage ratio requirement (%)	3.04	3.04
EU-26a	Additional own funds requirements to address the risk of excessive leverage (%)	–	–
EU-26b	of which: to be made up of CET1 capital (percentage points)	–	–
27	Leverage ratio buffer requirement (%)	–	–
EU-27a	Overall leverage ratio requirement (%)	3.04	3.04
	Choice on transitional arrangements and relevant exposures		
EU-27b	Choice on transitional arrangements for the definition of the capital measure	–	–
	Disclosure of mean values	**31.12.2021**	**31.12.2020**
28	Mean of daily values of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	–	–

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TABLE 57: EU LR2 – LRCOM – LEVERAGE RATIO COMMON DISCLOSURE

		0010	0020
		CRR leverage ratio exposures	
		a	b
		31.12.2021	30.06.2021
29	Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	–	–
30	Total exposure measure (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	48,451.3	–
30a	Total exposure measure (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	49,025.9	–
31	Leverage ratio (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	3.61	3.59
31a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	3.56	3.59

The following Table LRSpl presents the split-up of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures) of MünchenerHyp as at the 31 December 2021 date of reference in accordance with Article 451 (1) (b) b CRR.

TABLE 58: EU LR3 – LRSPL – SPLIT-UP OF ON BALANCE SHEET EXPOSURE (EXCLUDING DERIVATIVES, SFTS AND EXEMPTED EXPOSURES)

		CRR leverage ratio exposures
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	45,695.9
EU-2	Trading book exposures	–
EU-3	Banking book exposures, of which:	45,695.9
EU-4	Covered bonds	121.4
EU-5	Exposures treated as sovereigns	3,233.5
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	2.2
EU-7	Institutions	172.2
EU-8	Secured by mortgages of immovable properties	38,312.3
EU-9	Retail exposures	19.2
EU-10	Corporates	3,010.1
EU-11	Exposures in default	186.5
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	638.5

The following table presents the procedures used by MünchenerHyp to include the leverage ratio in its internal measurement and management processes, as well as the methods used to monitor the risk of excessive indebtedness.

TABLE 59: EU LRA – FREE FORMAT TEXT BOXES FOR DISCLOSURE ON QUALITATIVE ITEMS

		a
a)	Description of the processes used to manage the risk of excessive leverage	The Bank monitors the risk of excessive indebtedness by quantifying the leverage ratio and reporting it to the Board of Management on every reporting reference date – and as required. The business divisions have been made fully aware of the need to consider the effects that a potential new business activity may have on the leverage ratio. Along with the leverage ratio, MünchenerHyp employs additional key figures to evaluate the risk of excessive indebtedness, as the leverage ratio does not take into consideration the key risk driver of maturity-matched refinancing and the actual exposure of the assets. The factors influencing the leverage ratio are thoroughly analysed and reciprocal dependencies with MünchenerHyp's main controlling ratios, such as the LCR as well as the equity capital ratio, are evaluated and – if needed – lead to a review of measures that should be taken. Mismatched maturities arising from the short-term refinancing of lending operations represent a major cause of excessive indebtedness. As a Pfandbrief bank, MünchenerHyp's business model is explicitly aware of this risk and monitors it closely. MünchenerHyp has set itself a leverage ratio exceeding 3% as an internal minimum requirement. In order to meet this ratio in 2021, MünchenerHyp further increased its Tier 1 Capital in the form of paid-up capital. The leverage ratio is taken into consideration over a four-year planning horizon within the capital planning process used for own funds and the risk-weighted capital ratios in order to take appropriate measures in good time when planning Tier 1 Capital as well as the components of the total exposure measure.
b)	Description of the factors that had an impact on the individually disclosed leverage ratios during the reporting period	On 31 December 2021, MünchenerHyp's leverage ratio as per the terms of the CRR, and in connection with the Delegated Regulation 2015/62, was 3.61%. The leverage ratio was calculated using Tier 1 Capital of € 1,747.0 million divided by a Total Exposure Measure of € 48,451.0 million. In comparison, the leverage ratio on the 30 June 2021 date of reference was 3.58%, and 3.59% on the 31 December 2020 date of record. There was no significant change in the Leverage ratio between 31 December 2020 and 31 December 2021.

14 COVID-19 MEASURES

MünchenerHyp came through the Covid-19 pandemic well in the 2021 financial year. Despite all the difficulties, it may be said that it was a satisfactory financial year for the Bank. In addition to a very stable private customer business, the economic consequences of the Covid-19 pandemic were most visible in the commercial property financing segment of business, where a moderate decline in new domestic business was noted. It can thus be stated that the economic consequences of the Covid-19 pandemic have barely affected MünchenerHyp's mortgage portfolio. Instead, mortgage portfolios grew by 8.21 percent to EUR 38.4 billion. Only a very small number of our customers have taken advantage of the statutory credit moratorium for private individuals. The same applies to the voluntary repayment moratorium developed by the Association of German Pfandbrief Banks (vdp) for commercial property loans. Segments of the commercial property market that are particularly affected, such as hotels, only account for a very small share of the Bank's total credit portfolio. The entire portfolio of commercial property loans was analysed without any significant risks being identified from today's perspective.

The following tables show the most important key figures of the measures mentioned.

TABLE 60: TEMPLATE 2: BREAKDOWN OF LOANS AND ADVANCES SUBJECT TO LEGISLATIVE AND NON-LEGISLATIVE MORATORIA BY RESIDUAL MATURITY OF MORATORIA

		a	b	c	d	e	f	g	h	i
			Gross carrying amount							
						Residual maturity of moratoria				
		Number of obligors	Of which: granted	Of which: legislative moratoria	Of which: expired	≤ 3 months	> 3 months ≤ 6 months	> 6 months ≤ 9 months	> 9 months ≤ 12 months	> 1 year
		010	020	030	040	050	060	070	080	090
1	Loans and advances for which moratorium was offered	2,099	453.1	–	–	–	–	–	–	–
2	Loans and advances subject to moratorium (granted)	1,602	332.4	–	332.4	–	–	–	–	–
3	of which: Households	–	200.6	–	200.6	–	–	–	–	–
4	of which: Collateralised by residential immovable property	–	198.3	–	198.3	–	–	–	–	–
5	of which: Non-financial corporations	–	131.8	–	131.8	–	–	–	–	–
6	of which: Small and Medium-sized Enterprises	–	70.8	–	70.8	–	–	–	–	–
7	of which: Collateralised by commercial immovable property	–	67.0	–	67.0	–	–	–	–	–

Annex – Management Bodies

Supervisory Board

Dr Hermann Starnecker
Spokesman of the Board of Management of
VR Bank Augsburg-Ostallgäu eG
Chairman of the Supervisory Board

Gregor Scheller
Chairman of the Board of Management
VR Bank Bamberg-Forchheim eG (as of 31.01.2022)
President of Association and Chairman of the Board of Management of Genossenschaftsverband Bayern e. V. (as of 01.02.2022)
Deputy Chairman of the Supervisory Board

HRH Anna Duchess in Bavaria
Entrepreneur

Barbara von Grafenstein
Employee representative (until 30.06.2021)

Thomas Höbel
Spokesman of the Board of Management of
Volksbank Raiffeisenbank Dachau eG

Josef Hodrus
Spokesman of the Board of Management of
Volksbank Allgäu-Oberschwaben eG

Jürgen Hölscher
Member of the Board of Management of
Emsländische Volksbank eG

Rainer Jenniches
Chairman of the Board of Management of
VR-Bank Bonn eG

Reimund Käsbauer
Employee representative

Michael Schäffler
Employee representative

Claudia Schirsch
Employee representative (as of 01.07.2021)

Kai Schubert
Member of the Board of Management of
Raiffeisenbank Südstormarn Mölln eG

Frank Wolf-Kunz
Employee representative

Board of Management

Dr Louis Hagen
Chairman of the Board of Management

Dr Holger Horn
Member of the Board of Management (as of 01.01.2022)

Ulrich Scheer
Member of the Board of Management (as of 01.09.2021)

Markus Wirsen
Member of the Board of Management (as of 01.04.2022)

Mandates
Dr Louis Hagen
KfW
Member of the Board of Supervisory Directors

Dr Holger Horn
FMS Wertmanagement AöR
Member of the Board of Supervisory Directors (as of 01.02.2020)

List of Tables

Formula Directory

List of Abbreviations

ADI » Available distributable items
AE ratio » Asset Encumbrance Ratio
AfS » Available for Sale
AT1 » Additional Tier 1 Capital
BaFin » German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)
BVR » Federal Association of German Volksbanken and Raiffeisenbanken (Bundesverband der Deutschen Volksbanken und Raiffeisenbanken)
BWGV » Association of Baden-Wuerttemberg Cooperatives (Baden-Württembergischer Genossenschaftsverband e. V.)
CCB » Countercyclical Capital Buffer
CCF » Credit Conversion Factor
CD » Certificates of Deposit

CDS	»	Credit Default Swaps
CET1	»	Common Equity Tier 1 Capital
CP	»	Commercial Paper
CRD IV	»	Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (CRDIV)
CRM	»	Credit Risk Mitigation (techniques)
CRR	»	Regulation (EU) No. 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No. 648/2012
CUSIP	»	Committee on Uniform Security Identification Procedures
CVA	»	Credit Valuation Adjustment
CVaR	»	Credit Value at Risk
EAD	»	Exposure at Default
EBA	»	European Banking Authority
ECAI	»	External Credit Assessment Institutions
ECB	»	European Central Bank
EDP	»	Electronic Data Processing
EEA	»	European Economic Area (EEA)
EL	»	Expected Loss
FX risks	»	Foreign Exchange Risks
GVB	»	Association of Bavarian Cooperatives (Genossenschaftsverband Bayern e.V.)
ICAAP	»	Internal Capital Adequacy Assessment Process
ILAAP	»	Internal Liquidity Adequacy Assessment Process
IMA	»	Internal Model-Based Approach
InstitutsVergV	»	German regulation on the supervisory requirements for compensation systems of banks; Remuneration Regulation for Institutions (Institutsvergütungsverordnung)
IPRE	»	Income Producing Real Estate
IRBA	»	Internal Ratings Approach
ISIN	»	International Securities Identification Number
IT	»	Information Technology
ITS	»	Implementing Technical Standards
KSA	»	Standardised Approach to Credit Risk (Kreditrisikostandardansatz)
KWG	»	German Banking Act (Kreditwesengesetz)
LGD	»	Loss Given Default
LRG	»	Local and Regional Governments
MaRisk	»	Minimum Requirements for Risk Management (Mindestanforderungen an das Risikomanagement)
MünchenerHyp	»	Münchener Hypothekenbank eG
N/A	»	Not applicable
NSFR	»	Net Stable Funding Ratio
OpRisk	»	Operational Risk
PD	»	Probability of Default
PPU	»	Permanent Partial Use
PU	»	Partial Use
QIS	»	Quantitative Impact Study
RTS	»	Regulatory Technical Standards
RWA	»	Risk-Weighted Assets
RWGV	»	Association of Rhineland-Westphalia Cooperatives (Rheinisch-Westfälischer Genossenschaftsverband e.V.)
SME	»	Small and Medium-Sized Enterprises
SolvV	»	German Solvency Regulation (Solvabilitätsverordnung)
SRB	»	Single Resolution Board
SREP	»	Supervisory Review and Evaluation Process
T1	»	Tier 1 Capital (T1 = CETI + ATI)
T2	»	Tier 2 Capital (Supplementary Capital)
TC	»	Total Liable Equity Capital (TC = T1 + T2)
UL	»	Unexpected Loss
VaR	»	Value at Risk
vdp	»	Association of German Pfandbrief Banks (Verband deutscher Pfandbriefbanken)
VR	»	Volksbanken Raiffeisenbanken

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