ANNUAL REPORT 2022

Building your tomorrow

Aareal

YOUR COMPETITIVE ADVANTAGE.

Key Indicators

	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021
Results		
Operating profit (€ mn)	239	155
Consolidated net income (€ mn)	153	68
Consolidated net income allocated to ordinary shareholders (€ mn) [1]	138	53
Cost/income Ratio (%) [2]	40.3	49.9
Dividend per share (€) [3]	–	1.60
Earnings per ordinary share (€) [1]	2.32	0.89
RoE before taxes (%) [1]	7.9	5.3
RoE after taxes (%) [1]	5.0	2.1

	31 Dec 2022	31 Dec 2021
Statement of financial position		
Property finance (€ mn)	30,901	30,048
Equity (€ mn)	3,258	3,061
Total assets (€ mn)	47,331	48,728
Regulatory indicators [4]		
Basel IV (phase-in)		
Risk-weighted assets (€ mn)	12,782	12,817
Common Equity Tier 1 ratio (CET1 ratio) (%)	19.3	18.2
Tier 1 ratio (T1 ratio) (%)	21.7	20.5
Total capital ratio (TC ratio) (%)	24.0	23.6
Basel III		
Common Equity Tier 1 ratio (CET1 ratio) (%)	19.3	22.2
Employees	3,316	3,170

	31 Dec 2022	31 Dec 2021
Moody's		
Issuer rating	A3	A3
Senior Preferred	A3	–
Bank deposit rating	A3	A3
Outlook	negative	negative
Mortgage Pfandbrief Rating	Aaa	Aaa
Fitch Ratings		
Issuer default rating	BBB+	BBB+
Senior Preferred	A-	A-
Senior Non Preferred	BBB+	BBB+
Deposit ratings	A-	A-
Outlook	negative	negative
Sustainability ratings [5]		
MSCI	AA	AA
ISS-ESG	prime (C+)	prime (C+)
CDP	Management Level B	Awareness Level C
Share price		
XETRA® closing price (€)	33.06	28.70

[1] The allocation of earnings is based on the assumption that net interest payable on the AT1 bond is recognised on an accrual basis.
[2] Structured Property Financing and Banking & Digital Solutions segments: in line with common practice in the banking sector, bank levy and contributions to the deposit guarantee scheme are not included.
[3] There are no plans to distribute any dividends, in line with the strategy for 2023. On 31 August 2022, the Annual General Meeting had resolved not to distribute any dividends for the 2021 financial year. In compliance with the requirements published by the European Central Bank (ECB) on 15 December 2020, the Bank distributed € 0.40 per share in 2021 for the 2020 financial year.
[4] 31 December 2021: excluding originally proposed dividend of € 1.60 per share in 2022 for the financial year 2021, including the dividend of € 1.10 per share not distributed in 2021 as well as the pro rata temporis accrual of net interest on the AT1 bond.
31 December 2022: including originally proposed dividend of € 1.60 per share in 2022 and pro rata temporis accrual of net interest on the AT1 bond, excluding profits for 2022 under commercial law. There are no plans to distribute any dividends, in line with the strategy for 2023. The appropriation of profits is subject to approval by the Annual General Meeting.
The SREP recommendations concerning the NPL inventory and the ECB's NPL guidelines for the regulatory capital of new NPLs and an additional voluntary and preventive capital deduction for regulatory uncertainties from ECB tests were taken into account.
Adjusted total risk exposure amount (as defined in Article 92 (3) CRR – RWAs), in accordance with applicable law as at 31 December 2022 (CRR II) and applying the partial regulation for the "output floor" in connection with commercial property lending and equity exposures, based on the European Commission's proposal dated 27 October 2021 for implementation of Basel IV. The adjusted risk-weighted exposure amount for commercial property lending and equity exposures is determined using the higher of (i) total RWAs calculated in accordance with CRR II currently in force, and (ii) the figure calculated in accordance with the revised CRSA (pursuant to CRR III), applying the transitional provisions for 2025 (50% output floor). This forms the basis for the development of Basel III ratios during the 2022 financial year, as shown; said 'higher-of' comparison was not carried out in this respect as at 31 December 2021.
[5] Please refer to our website (www.aareal-bank.com/en/responsibility/reporting-on-our-progress/) for more details.

Contents

Image concept

3DELUXE: the architects breaking with conventional perspectives

Building the future requires new design ideas for living and working space.

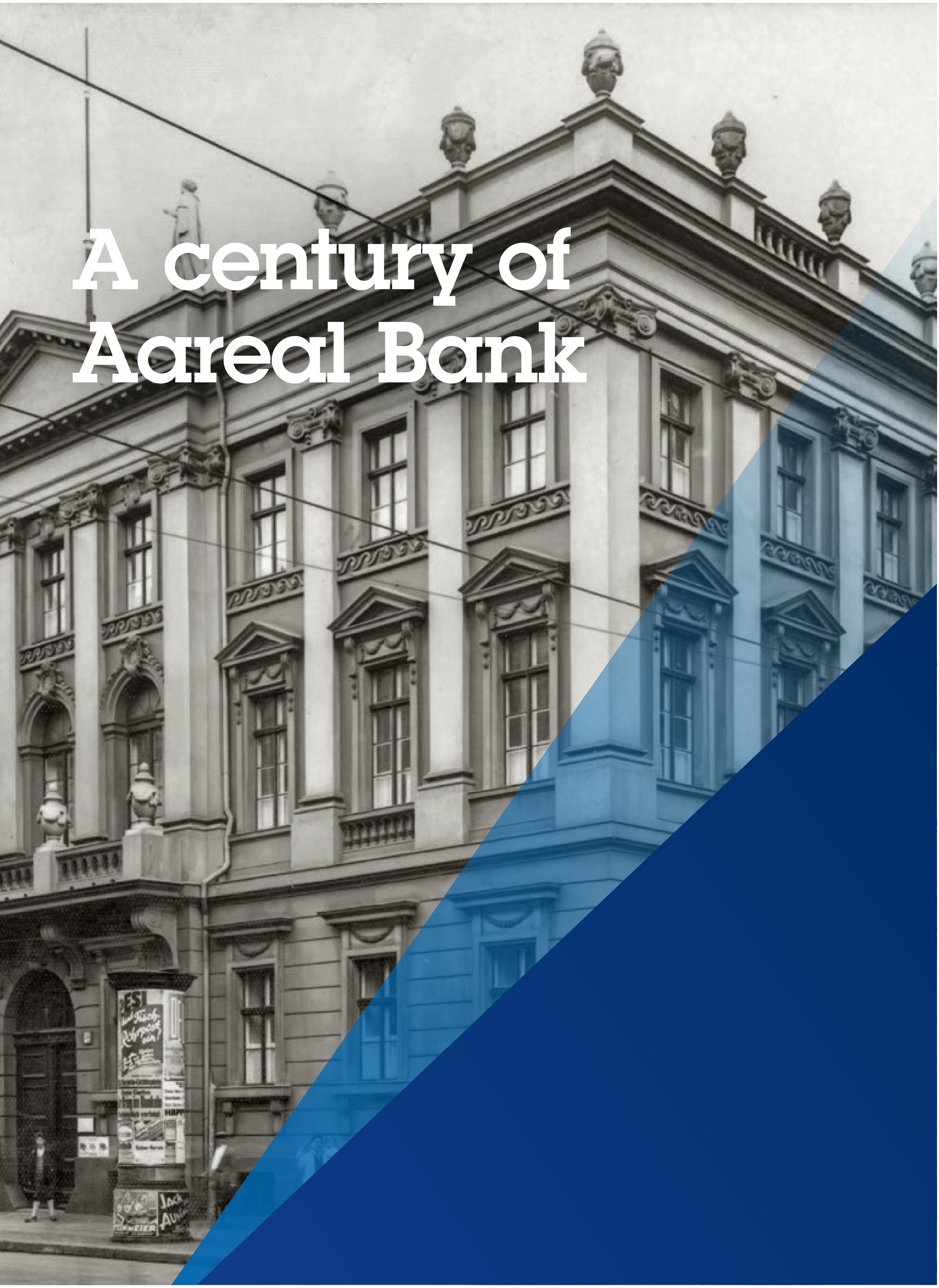
Only a few architectural firms around the world consistently centre their work around their visions. Among them is a group of professionals headquartered in Wiesbaden – just like Aareal Bank. The 40 architects working at 3DELUXE develop impressive and multi-award-winning studies and projects that deliberately break with conventional perspectives. They also focus on interconnectivity and sustainability – for modern urban development, ground-breaking office buildings, and flexible residential structures.

We are publishing this year's Annual Report under the motto "Building your tomorrow", which verbalises our aim to enter into dialogue with the pioneers of our future – a good reason for letting the visions of 3DELUXE inspire the image concept of this Annual Report.

3deluxe.de

Our online Annual Report:
ar2022.aareal-bank.com

A century of Aareal Bank



Aareal Bank Group has helped its clients achieve success for 100 years. The calling has remained the same since day one: Aareal Bank Group's mission is to be not only a property lender and provider of products and services, but also to advise clients and help them find their way.

Since it was founded in July 1923 as Deutsche Wohnstätten-Bank AG, Aareal Bank Group has never stopped evolving. Whilst Deutsche Wohnstätten-Bank AG initially focused on granting housing construction loans after the First World War, Aareal Bank developed into one of the leading international property specialists over the course of its long and rich history, opening up new business areas and markets along the way. Today, Aareal Bank Group offers financing across three continents, traditional banking services and software products for the property sector and related industries.

Moreover, Aareal Bank is an active issuer of Pfandbriefe and bonds on the capital markets. Deposits, from the housing industry in particular, are an additional source of funding.

The Bank's purpose has remained steadfast for 100 years: to serve the property and housing industry as a reliable and flexible partner. The belief in "building your tomorrow" is just as true today as it was on day one.

Being able to actively shape the future requires extensive knowledge of market connections, a cross-sector perspective and a solid grasp of the challenges that clients are facing, predicated on a holistic, long-term way of thinking and – more importantly – curiosity, know-how and the willingness to change. It also calls for the courage to point out opportunities and risks, and to develop and action pioneering ideas.

Skills and passion

Since its founding, Aareal Bank Group's most important capital has been its employees. It is their dedication and individual experiences that determine whether we succeed at the mission we have set for ourselves. Their skills and passion have been the cornerstone of our success for 100 years.

That is why personnel planning, recruitment and development are so important at Aareal Bank. The Bank champions a value-based culture and diversity, with employees from 45 different countries working together with mutual trust and respect.

Clear sense of direction

Over the past century, Aareal Bank Group has successfully mastered a great many challenges. A clear sense of direction and continuous innovation are what it takes to overcome the challenges facing the property, housing and energy sector right now; there is no shortage of disruptive change and transformation ahead. The city of tomorrow has new expectations and habits in store, calling for new services and business models. It also holds new opportunities and prospects. In this rapidly changing world, Aareal Bank Group is there for its clients with its pioneering solutions, standing at their side as a reliable partner with a century of experience.

100 Years Building Your Tomorrow

Aareal Bank Group

Aareal Bank Group, headquartered in Wiesbaden, was founded 100 years ago and has since become a leading international property specialist. The Bank uses its expertise to identify trends, challenges and opportunities at an early stage, and to exploit them for the benefit of its stakeholders.

Today Aareal Bank Group offers financing across three continents, traditional banking services and software products for the property sector and related industries. It is the lead bank to the German housing industry and supports international clients in more than 20 countries.

Aareal Bank Group's business strategy focuses on sustainable business success, with environmental, social and governance aspects as an integral part of this strategy. Aareal Bank AG comprises the business segments Structured Property Financing, Banking & Digital Solutions, and Aareon.

Structured Property Financing

The Structured Property Financing segment encompasses all of Aareal Bank Group's property financing and funding activities. Here, the Bank supports its clients in making large-volume commercial property investments. The investment properties mostly comprise office buildings, hotels, shopping centres, logistics and residential property, as well as student apartments.

Aareal Bank's lending business is refinanced through Pfandbriefe and bonds. Adding to this are deposits from the German housing industry, institutional money market investors and private customers, the latter being raised by way of a trust model.

Banking & Digital Solutions

In the Banking & Digital Solutions segment, Aareal Bank Group supports businesses from the housing, property management and energy industries as a digitalisation partner – combining extensive advisory services and product solutions with traditional corporate banking services and deposit-taking.

Aareon

The Group's subsidiary Aareon, the leading supplier of software as a service (SaaS) for the European property sector, represents the third business segment. It is digitalising property management by offering user-oriented software solutions that simplify and automate processes, support sustainable and energy-efficient operations and interconnect all process participants.

Explore the **100-year history** of Aareal Bank Group and learn about its key milestones.

"We are a specialist and a global player bringing together the best of both worlds: a down-to-earth approach and worldwide expertise, fast decision-making processes and an international footprint, an understanding of our clients' needs, and a reputation of reliability on the global capital markets."

Jochen Klösges

Chairman of the Management Board

Aareal Bank

The city of tomorrow

The future belongs to the city – Covid-19 and slowing urbanisation in the West have not changed that. But far-reaching changes are needed to maintain the quality of life in urban areas, changes that will impact on business models in the property, housing and energy sectors.

Cities account for roughly half of the world's population. The United Nations has forecast that this figure will even rise to around 70 % by 2050. The European Union and the USA reached that level of urbanisation long ago, with 75 to 83 % of the population currently living in urban areas, and rising daily.

Cities in transition

This has left infrastructure in many cities stretched thin. Cities not only have to provide additional space for people to live, work and gather, but also upscale transportation and energy systems to cope with the growing number of residents. Last but not least, as standards of living increase, they also have to accommodate higher expectations about individuality, mobility, digitalisation and sustainability.

At the same time, the way that people work and live together is changing. Things like online shopping and the shift to remote working are giving rise to new habits and expectations, as is the rising demand for smaller homes and the growing importance of the sharing economy. Moreover, as the average age of the population increases, there is a need for new utilities, health care and community structures. All the while, meeting global sustainability targets poses completely new challenges for city and property planning.

Looking for a fresh approach

Cities are finding themselves in an unparalleled transformation process. They have to be greener and healthier, safer and smarter, less centralised and more social. New terms are constantly emerging to describe the latest city planning concepts, like "15 minute city", "vertical villages" and "third places", or "responsive city", "urban manufacturing" and "urban farming".

One thing is certain: the city of tomorrow will be entirely different from the city of today. Profound change is taking place – virtually across the board. New concepts are needed for energy, telecommunications, mobility, shopping, culture and sports, education and waste management, just to name a few.

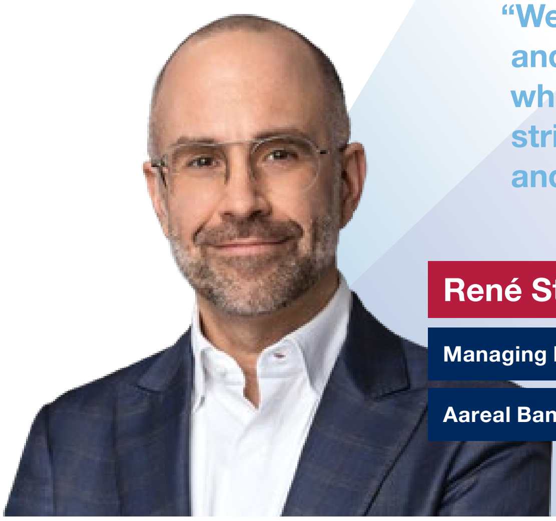
"The city of tomorrow is full of opportunities for property investors. Our decades of experience and extensive industry expertise enable us to support our clients in identifying and taking advantage of these opportunities."

Why does career mean more than just work to us? Click here to find out what sets us apart and how we can grow together.

Bettina Graef-Parker

Managing Director Special Property Finance

Aareal Bank



"We are continuously developing our products and innovating is extremely important to us, which means that our clients can meet more stringent sustainability requirements head on and set themselves up for the future."

René Steurer
Managing Director Group Strategy
Aareal Bank

The city as a driving force

The fact that cities only account for two per cent of the earth's surface but consume 75 % of globally required energy demonstrates just how urgently these new concepts are needed. Designing cities in a climate-neutral way would be a critical contribution towards achieving the 1.5-degree target adopted by the international community.

However, that would mean that the buildings in cities would need to decarbonise significantly because buildings are responsible for roughly 40 % of all greenhouse gas emissions globally, three quarters of which are emitted during operations. Making buildings as climate-neutral as possible requires tremendous investment in renovation and reconstruction, and poses great challenges that property owners and banks will only be able to overcome by working hand in hand. But if those buildings are left without energy upgrades, it could cause a massive blow to property values.

Putting business models to the test

All these changes also impact on the business models of companies active in the property, housing and energy sectors. The services they offer all have to accommodate the profound transformation taking shape in cities.

Property investors need to figure out what asset classes have a promising future in the city of tomorrow and which property concepts will have traction within those asset classes. Do office buildings have to be reconceived entirely? Do hotels and shopping centres need to reinvent themselves? And what requirements do residential buildings and logistics facilities need to meet in the city of tomorrow?

Companies that service the housing, property and energy sector need to figure out whether their business model will survive in the city of tomorrow, because even though new demands are emerging, new providers are entering the market and sectors are merging as digitalisation progresses. This all revolves around what business areas will still be profitable and competitive tomorrow and what needs to be done to capture them and/or expand there.

More information about the city of tomorrow:

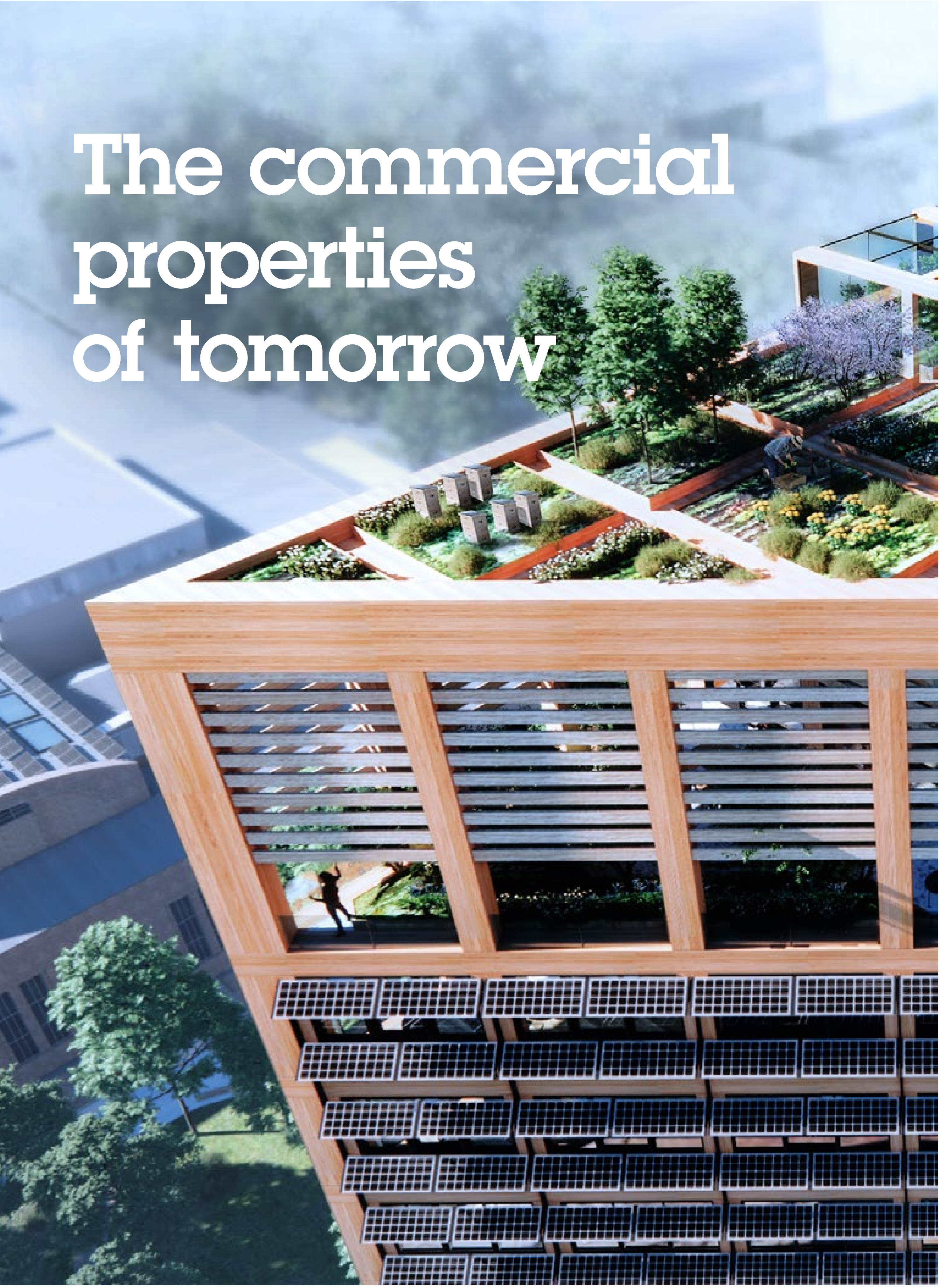
↗ **Zukunftsinstitut**
(only available in German)

↗ **Federal Ministry for Economic Cooperation and Development**

↗ **The Helmholtz Association's ESKP**

↗ **#stadtvonmorgen – The platform for city transformation**
(only available in German)

The commercial properties of tomorrow



There will still be office buildings, hotels, shopping centres, logistics centres and many other properties used for commercial purposes in the city of tomorrow. But how will they be different? And how significant will they be?

More sustainable, smarter, more flexible – commercial properties will change in a multitude of ways in the years to come. To reach international climate targets, they will have to meet more stringent ecological standards in the future, gradually transforming into smart buildings. In terms of intended use, being adaptable and multifunctional will be increasingly important. Mega trends like urbanisation, mobility, individualisation and new work are seeing different areas of life, such as home and work, career and leisure or experiences and consumption steadily merge together.

These different areas of life merging together is also the main reason why commercial properties are becoming even more critical facets of a city neighbourhood or district. Their function, and therefore their value, increasingly depends on the overall planning and development concept aimed at improving the quality of life and experience of the people who live in that neighbourhood. In addition to economic factors, developers and investors are therefore being called upon to consider the social and ecological impacts of a commercial property on its surroundings to a far greater extent than ever before.

Offices in transformation

The way different areas of life are merging is already quite evident in office buildings. The remote working trend means that they are increasingly becoming places to meet, exchange and collaborate, with co-working areas, project zones or meeting spaces. By contrast, dedicated desks or personal offices are losing significance.

However, office buildings will not lose their present status in the city of tomorrow, especially in centrally located areas. Although demand for office space overall is likely to go down slightly and shift, the pandemic showed us just how crucial personal interaction is. For many employees, the office is not merely a place to coordinate things or occasionally work together on projects; it is also a place to formulate ideas, exchange information and for personal social contact. Not to mention that appealing, centrally located offices with good transport connections also enhance a business's brand, helping it to attract and retain employees.

New concepts in retail

Even though many products are now purchased online, a bricks-and-mortar retail store is still important – for inspiration, to try out products, to get personalised advice or to experience something. More than ever, on- and offline offerings are blending together, and multichannel business models are on the rise. Many retailers have had their own online shops for quite some time, offering digital transactions and delivering purchases to peoples' homes. And online shops, on the other hand, are setting up bricks-and-mortar flagship stores and offering their customers the option of having the items they want delivered to a store. Shopping centres in particular are poised to benefit from this mixture of on- and offline offerings.

While these are all reasons why retail shops and shopping centres will continue to be an important part of cities, especially larger ones, their business models will evolve. To be as attractive to as many people as possible, it will be ever more important to combine shopping with other experiences and services, such as hospitality, health and wellness offerings ("retailtainment") or digital technologies, such as virtual and augmented reality or AI-based digital assistants, with the location of a shop and the shopping centre's design becoming more critical.

In 2022, Aareal Bank once again supported many investors in **financing their commercial property.** Find out more about the **year's major projects.**

"In future, commercial property will be considerably more sustainable and more flexible in terms of use. For example, co-working spaces and project zones are on the rise, because hybrid working means offices are increasingly becoming places to meet, exchange ideas and collaborate."

Higher expectations for hotels

Some mega trends also mean we can expect changes for hotels. The trend towards urbanisation will lead to new mega hotels in many large cities with neo-ecology and connectivity trends impacting hotel architecture and facilities. The new work trend will place fresh demands on city hotels as more hotel guests also use hotels as a place to work, meaning they will expect it to have the same offerings and conveniences as the workplace or the home office.

It seems unlikely that hotels will cease to be important or that the number of stays will decline, because the desire to travel remains strong and has always held a special fascination for people. And ultimately online tools can only go so far in establishing, maintaining and extending business relationships. Occupancy rates at most hotels have long since returned to pre-pandemic levels, both in terms of holiday and business travel.

The rising significance of logistics centres

Further growth can be expected in logistics centres. The dynamic growth that the e-commerce market has been experiencing and additional tasks for logistics providers are fuelling a rise in future demand for warehousing and dispatch centres, as well as transport services. Furthermore, geopolitical changes currently underway in the logistics sector are boosting growth further as supply chains adapt in connection with nearshoring efforts over the next several years, entailing the need for additional warehousing and transport capacities.

Urbanisation will enhance the role of logistics centres still further. We can expect to see a new type of urban logistics emerge, providing cities with goods and services in a fast, efficient and CO_2-neutral manner. Key elements of this urban logistics will include not only sustainability-orientated transport, but also new urban hubs to minimise delivery times and reduce environmental damage while also freeing up transport resources.

A growing need for knowledge

For all property, it is safe to say that the high inflation rates we are currently experiencing, and the hike in interest rates they have caused, have made it necessary to scrutinise property to avoid bad investments and decisions – not to mention that a property's value increasingly depends on ESG factors.

That is why property investors need to keep up with how individual markets are changing more than ever and evaluate how these changes impact on individual property classes. Sector and market expertise are becoming even more crucial, as is knowing how to increase a property's sustainability performance. Ultimately the city of tomorrow will have every type of commercial property, but in the long term that property will primarily be green.

More information about the commercial property of tomorrow:

- ↗ **ZIA – Die Immobilienwirtschaft**
- ↗ **KPMG**
- ↗ **Deloitte**
- ↗ **Immobilien & Finanzierung** (only available in German)

The home of tomorrow

Digitalisation has already permanently changed how we live. But the biggest changes are yet to come, with digital ecosystems playing a key role in the property sector and related industries.

A person's home is their castle, providing security, comfort and protection while also creating space for creativity, communication and togetherness. It can be a place to work and learn, or to play and recuperate, and is an expression of the personality, preferences and lifestyle of the person who lives there.

So it is no wonder, then, that nearly every major trend and development in society will shape the home of tomorrow.

Digitalisation as a growth driver

Almost without exception, digital technologies play a critical role in the changes ahead; they are drivers of innovation in the home of tomorrow. They open new horizons for interactions in terms of sustainability, efficiency and connectivity, whilst simultaneously fuelling higher standards and expectations for speed, transparency and comfort.

Smart entry and security systems, digitally reading and visualising usage data, the Internet of Things or remotely controlling lighting and heating are just a few examples. Communicating with tenants, housing companies, utilities, tradespeople and caretakers is changing, with things like apps offering 24/7 self-service, AI-based virtual assistants, and digital processes for repairs or moving in and out of properties. The digital connectivity of systems is even changing payment, tenancy deposit and billing processes.

Digital ecosystems create new perspectives

Companies in the property management, housing and energy sector are facing even greater demands. They have to provide the digital services that the owners/tenants of houses and apartments expect and adjust their processes accordingly, making them considerably more efficient. If they succeed in offering such extensive and attractive services to clients, new business areas may emerge, for example in the removals, energy, telecommunications and mobility domains.

"We are using innovative banking services and digital solutions to optimise processes for our clients, supporting them in a rapidly changing world and increasing their competitive edge."

Lars Ernst

Managing Director Banking & Digital Solutions

Aareal Bank

"Open and digital ecosystems unlock new potential for value creation for the property and housing industry by connecting stakeholders, enhancing effectiveness through the automation of standard processes and enabling a fully digital service experience for our clients."

Harry Thomsen
Chief Executive Officer
Aareon

Digital ecosystems required

Demand for innovative ideas and concepts is not only an issue when it comes to interacting with the owners and tenants of apartments. It is also important in dealing with partners and suppliers because collaborating with tradespeople, utility companies, facility managers, financial services providers and other providers of up- and downstream value creation processes is transforming. To remain competitive, processes have to become more and more automated, integrating ever more data seamlessly, performing more extensive analyses. It requires not only being digitally connected with business partners, but also a smart connection between proprietary ecosystems and information and sensor technology in buildings and technical devices.

That is all going to change the property, housing and energy sector. Companies that want to position themselves on solid footing for the future have to question their range of services, their structures and processes, their IT systems and digital technologies and make the necessary adjustments. In future, we foresee increased cooperation between players to develop flexible and more client-specific solutions more quickly. As a result, the divisions that exist today in the property, housing and energy sector and related industries will become less noticeable as collaboration plays a greater role.

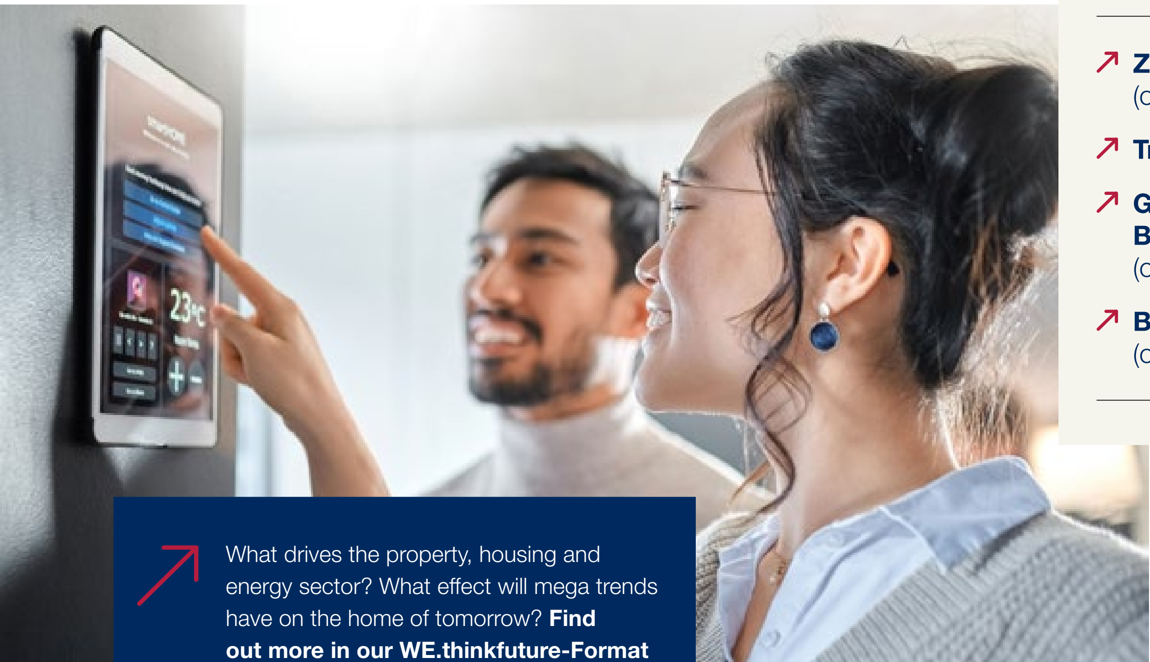
More information about the home of tomorrow

↗ **Zukunftsinstitut**
(only available in German)

↗ **Trendbüro**

↗ **GdW – Studien und Branchenberichte**
(only available in German)

↗ **Bitkom**
(only available in German)



↗ What drives the property, housing and energy sector? What effect will mega trends have on the home of tomorrow? **Find out more in our WE.thinkfuture-Format** (only available in German).

Milestones 2022

February: Aareal Bank Group sets new growth targets
Aareal Bank Group exceeded its strategic targets and substantially increased earnings in the 2021 financial year. The Company embarks upon another growth phase from a position of strength.

March: Aareal Bank Group acquires CollectAI
Aareal Bank Group acquires all the shares in Collect Artificial Intelligence GmbH (CollectAI). With this acquisition, Aareal Bank Group is expanding its range of products and services in the Banking & Digital Solutions segment, adding end-customer communications functionality as well as AI-based solutions for interactive invoices and intelligent dunning processes.

March: Aareal Bank provides financing for Scape's student accommodation
Aareal Bank concludes a green financing agreement with Scape Living Plc, a subsidiary of APG Asset Management NV. The £ 157 million senior loan serves to (re-)finance four student housing properties in London and Guildford. Aareal Bank acts as arranger, agent and sole lender.

March: Aareal Bank arranges financing for an international logistics portfolio
Aareal Bank acts as arranger and lender for a € 586 million loan financing an international portfolio of logistics properties. The portfolio comprises 24 prime logistics facilities located in the UK, Germany, France and the Netherlands.

June: 85,000 retail customers via tenant deposit guarantees
plusForta, a leading online tenant deposit guarantee broker in Germany, expands its customer base to more than 85,000 retail customers. plusForta, which has been part of Aareal Bank Group since 2019, brokers tenant deposit guarantees via its online platforms kautionsfrei.de and kautionsfuchs.de.

April: Aareon appoints Harry Thomsen as new CEO
Harry Thomsen is appointed CEO of Aareon AG, taking the reins from Dr Manfred Alflen, who has overseen Aareon evolving into a leading software player in the European property industry.

May: Successful takeover offer by Atlantic BidCo
More than 60 % of shareholders accept bidder company Atlantic Bidco's takeover offer, exceeding the minimum acceptance level. Atlantic BidCo will be the new majority owner of Aareal Bank AG, subject to regulatory approvals.

June: Aareon acquires 93 % stake in Momentum
Swedish Momentum Software Group AG develops, sells and implements software-as-a-service (SaaS) solutions for property and energy management. It supports Aareon's transformation into a SaaS company.

July: Nina Babic appointed to the Management Board as Chief Risk Officer
Nina Babic, responsible for Aareal Bank's credit management and serving as Senior General Manager since 1 June 2021, succeeds Christiane Kunisch-Wolff, who requested the early termination of her contract for personal reasons.

November: Aareal Bank refinances British hotel portfolio
Aareal Bank grants a £ 240 million senior loan to the European Property Investors Special Opportunities 6 fund (EPISO 6) to refinance the acquisition of a hotel portfolio. The portfolio comprises nine hotels in London, Edinburgh and Glasgow. Aareal Bank acts as sole arranger, agent and sole lender.

July: Management Board team at Aareon realigned
Aareon AG's Supervisory Board appoints Rumyana Trencheva and Dr Ernesto Marinelli to the Management Board. Dr Marinelli is responsible for the newly created Chief People Officer (CPO) role on the Management Board. Ms Trencheva assumes the role of Chief Revenue Officer (CRO).

July: Aareal Bank arranges financing for pan-European logistics portfolio
To enable the acquisition of a prime logistics portfolio, Aareal Bank provides an international investor with a € 470 million loan. The well-diversified portfolio comprises more than 20 properties, located mainly in Continental Europe. Aareal Bank acts as arranger, agent and lender.

December: Increased deposit volume
Average deposit volume at Aareal Bank climbed to € 13.4 billion during the financial year, clearly surpassing the original target level of € 12 billion. € 2.5 billion of the average deposit volume is accounted for by tenant deposits.

To our Shareholders

Letter from the Chairman of the Management Board

from left:

Marc Hess
Member of the Management Board

Nina Babic
Member of the Management Board

Jochen Klösges
Chairman of the Management Board

Christof Winkelmann
Member of the Management Board

Dear shareholders,
business associates and staff members,

At a time of historic upheaval and towering economic and political insecurity, Aareal Bank is embarking on its 100th year. Our Company was founded on 20 July 1923 in Berlin as Deutsche Wohnstätten-Bank AG. One hundred years later, Aareal Bank is both a specialist and a global player. It combines a down-to-earth approach with global expertise, and one hundred years after its inception, it continues to be what it was on day one: a reliable partner to its clients in the property and housing sector.

Steadfastly guided by its clients' needs, it pairs its exceptional resilience and adaptability with stability and continuity. That has always been Aareal Bank's nature. And that is also the guiding force that will shape the next chapter of the Company's history, one that we will open this year as we celebrate a century of doing business. Assuming we receive the official approvals currently pending at the time of drafting this letter, Aareal Bank Group will have a new ownership structure upon completion of the financial investors' takeover offer. With this in mind, we look forward to continue pursuing our tried-and-tested strategy geared towards profitable growth in all segments – to the benefit of all our stakeholders.

To achieve further progress under these special circumstances, we have forged a very good starting position for ourselves, especially during this last year.

The 2022 financial year was shaped by a series of unanticipated developments and tremendous economic challenges – in particular, an exorbitant surge in energy prices as a consequence of Russia's war against Ukraine, disrupted supply chains, high market volatility, extreme inflation by local standards and the turnaround in interest policy adopted by the European Central Bank in mid-2022. This difficult mix of factors was very demanding for companies in every sector and industry. Banks were no exception – nor were we.

That is why we are so pleased to be able to say that Aareal Bank Group successfully mastered these manifold challenges. We finished the financial year under review with strong earnings and achieved all our targets.

At € 239 million, our consolidated operating profit was up 54 per cent year on year, which means it was not only back to pre-pandemic levels but actually in the upper half of the communicated target range of € 210 million to € 250 million. We managed this despite having to contend with a total of € 134 million in burdens from our remaining exposure to Russia and absorbing the transaction costs from the takeover process.

Driving our strong performance was very dynamic earnings development paired with continued strict cost discipline.

Net interest income grew by nearly one fifth in 2022 on the back of continued high-margin growth in the lending business in line with our strategy and further improvements to our funding mix, as well as higher interest rates, which have also been benefiting the deposit-taking business since the second half of the year, with volumes showing continued solid growth. The predictions we made in the low interest rate environment proved to be well founded: we said that the turnaround in interest rates would create tangible earnings potential for our deposit-taking business, above and beyond its importance for funding.

We are also pleased that growth in net commission income was nearly just as strong. This was due above all to the continued growth of our software subsidiary Aareon which is within striking distance of the rule-of-40-company target with a 15 per cent increase in revenue and an adjusted EBITDA margin of 24.4 per cent. The Banking & Digital Solutions segment also made a sizeable contribution to the strong increase in net commission income.

Meanwhile, the increase in costs has been disproportionately low in comparison to revenue growth. Leaving transaction costs from the takeover process aside, costs within the Bank were even stable. We have therefore shown that we can grow, as promised, at low marginal costs. This is also reflected in our cost/income ratio, which we improved by nearly ten percentage points to 40 per cent within the Bank. This means not only that we reached our 44 per cent mid-term target early, but also that we have joined the ranks of the top European banks.

As with costs, we have a firm grasp of risk. Our loss allowance of € 192 million was primarily related to Russia. There were very few defaults in other business, which reflected the recovery on the markets following the pandemic as well as the conservative risk policy we maintained during the Covid-19 crisis and the high quality of our loan portfolio in general.

One reason that last year was so strong is that we expanded our funding base even further by partnering with Raisin/Weltsparen, Deutsche Bank Zinsmarkt and Norisbank, thus making our fixed-income products available to retail investors. We crossed the one billion euro threshold in February this year. We also launched our European Commercial Paper Programme at the end of 2021 and it has exceeded our expectations. The volume issued was € 1.1 billion as at year-end, half of which were green issues.

Our capital ratios remain at a very solid level. Despite expanding the lending business, our Common Equity Tier 1 ratio further increased to 19.3 per cent by year end. This means we are well prepared to face a potential economic downturn and realise our ambitious growth plans in all three segments.

Overall, the last financial year tells us that Aareal Bank Group is in excellent health. We are systematically implementing our strategy. We delivered on our promises in the past financial year and have laid a very solid foundation for further profitable growth.

Our task now is to leverage our excellent position to set the right course for the years ahead. This means drawing on our financial strength to further invest in our future performance, this year included.

To be specific, we have two main items on the agenda: firstly, we are looking to budget roughly € 60 million for the swift reduction of non-performing loans. It is money well invested because it further increases our resilience. Secondly, we will invest around € 35 million in initiatives aimed at enhancing Aareon's efficiency.

Taking the total of just under € 100 million in account, we are targeting consolidated operating profit in a range of € 240 million to € 280 million for the 2023 financial year, sustaining earnings momentum with only a moderate cost increase. Adjusting the target range for the one-off investments, this means that we are already looking to achieve an operating profit of about € 350 million this year – a goal that we originally only envisaged setting for ourselves next year.

We will continue our established course in the individual segments. Our commercial property finance portfolio should continue to grow this year from roughly € 31 billion to between € 32 billion and € 33 billion, with a new business target of € 9 billion to € 10 billion. The role green financing plays in this context is likely to increase, given that the Bank already extended approximately € 1 billion in newly originated green loans under its Green Finance Framework during the year under review.

In the Banking & Digital Solutions segment, we want to keep deposits at a level of around € 13 billion even though competition has toughened. The segment's net commission income is expected to continue growing at an average annual rate of around 13 per cent. For Aareon, too, we expect revenues and results to continue rising. We anticipate sales revenues between € 325 million and € 345 million and adjusted EBITDA of between € 90 million and € 100 million.

Our goals for 2023 are ambitious but achievable, although the repercussions of the war in Ukraine remain difficult to anticipate. Yet despite the challenging global economic and geopolitical situation for our business, we remain confident on the whole. Because Aareal Bank Group is fundamentally sound. Because it enjoys an unrivalled position in its markets. And because, a century into its existence, it is ideally equipped to make the most of its future.

Yours sincerely,

Jochen Klösges,
Chairman of the Management Board

The Aareal Bank Share

Investor Relations activities

2022 was not only a challenging year for Aareal Bank for several reasons, but also one that pointed the way forward.

The Covid-19 pandemic continued to impact the economy during the financial year under review, albeit to a declining degree. Even though China was still following its zero-Covid policy up to the start of December, with all the economic repercussions this had for the global economy, the situation concerning the pandemic eased noticeably in the rest of the world. Restrictions were gradually lifted, so that public and private life could return to normal. However, Russia's war of aggression against Ukraine and the related consequences negatively impacted the economy beyond the financial year under review. The sanctions imposed in connection with the war led to a significant increase not only in energy prices – which were, however, largely responsible for inflation rates of up to 10 %. Central banks have tried to counter this development by raising interest rates in quick succession, but to the detriment of economic development.

As a listed public limited company, Aareal Bank is subject to numerous disclosure obligations. It sees such a challenging environment as an opportunity not only to enter into a consistently open and constructive dialogue with analysts, investors and clients, as well as with the media – but also to further intensify this dialogue.

The takeover offer by Atlantic BidCo GmbH, which fell short of the necessary shareholder majority in a first attempt at the start of February 2022, was of particular importance for Aareal Bank in the financial year under review. Atlantic BidCo GmbH launched a second takeover offer two months later, with a higher offer price. At the end of May, it announced that the minimum acceptance threshold of 60 % had been exceeded: the offer was thus accepted by the necessary shareholder majority. After all deadlines expired, 84 % of shareholders had tendered their shares to Atlantic BidCo GmbH, which then initiated the process of obtaining the necessary regulatory approval to take over Aareal Bank AG.

Against the background of uncertainty associated with the ongoing pandemic, the war in Ukraine, and the successful takeover offer by Atlantic BidCo GmbH, the dialogue with market participants in the financial year under review was particularly detailed and intensive. This is a prerequisite for the long-term success of a capital markets-oriented company. Only when current company developments are communicated and – if needed – discussed with Aareal Bank in a timely, open and transparent manner can market participants evaluate potential opportunities and risks that may result from the pandemic and market developments as well as from the current takeover.

Two conferences held each year for investors, analysts and the media – which were held in virtual format last year, too – also serve this purpose. Following the failed first takeover offer, the Management Board not only presented a significant swing in results in February 2022, despite the burdens of the second year of the coronavirus pandemic, but also the fact that material strategic targets set for 2021 within the framework of the "Aareal Next Level" programme were exceeded. The Management Board stated that Aareal Bank Group would advance the successful strategy from its own strengths, and to consistently exploit the growth potential offered across all of its segments in the years to come. As a matter of course, the Group would maintain intensive dialogue on this with investors, including in the conference calls to present the quarterly statements as an opportunity to inform investors, analysts and the media about current Group developments.

Although the financial year under review saw the return of in-person events, the Investor Relations team could only attend select capital market conferences or conduct a few roadshows. This was due to the successful second takeover offer by Atlantic BidCo GmbH, where shareholders tendered approximately 84 % of the shares. With a remaining free float of theoretically 16 % and the exit from the SDAX that ensued in autumn 2022, interest in Aareal Bank AG shares diminished noticeably. However, there was a greater need for information concerning the ongoing takeover process and Aareal Bank's fixed income side, so that the level of market communications remained high overall in 2022, despite the change in focus.

To further strengthen confidence in the sustainable performance of Aareal Bank Group's business model, we will continue to ensure transparency for our strategic course during the financial year 2023. We continue to actively seek dialogue with the capital markets, using personal contacts as well as other existing modern channels of communication.

In order to ensure access to timely, open and transparent information of relevance to the capital markets, detailed information on Aareal Bank Group and its three segments Structured Property Financing, Banking & Digital Solutions, and Aareon can be found on its website at www.aareal-bank.com. Furthermore, published ad-hoc disclosures and press releases, financial reports, as well as current Investor Relations presentations and rating reports are available for download from our Investor Relations portal. The financial calendar offers an overview of the most important dates in the Company's calendar.

Analysts' opinions

Given the successful second takeover offer by Atlantic BidCo GmbH and the resulting reduction (in theory) of the free float, four analyst firms ceased coverage of Aareal Bank AG. A further three firms reduced their analysis, so that Aareal Bank has now only been covered regularly by three broker and analyst firms since the start of the new 2023 financial year (start of 2022: 10).

There was one "sell" recommendation at year-end 2022 compared to five "neutral" recommendations. This mainly reflects the development of the Aareal Bank share price since the announcement of the successful second takeover offer by Atlantic BidCo GmbH, and to a lesser extent the positive operating performance of Aareal Bank Group in the financial year under review.

We regularly update and publish the analysts' recommendations on our website www.aareal-bank.com on the Investor Relations page.

Key data and indicators of the Aareal Bank share

	2022	2021
Share price (€)[1]		
Year-end price	33.060	28.760
High	33.180	29.420
Low	22.760	18.330
Book value per ordinary share (€)	48.26	45.02
Dividend per ordinary share (€)[3]	–	1.60
Earnings per ordinary share (€)	2.32	0.89
Price/earnings ratio[2]	14.25	32.34
Dividend yield (%)[2]	–	5.56
Market capitalisation (€ mn)[2]	1.979	1.721

ISIN	DE 000 540 811 6
German Securities ID (WKN):	540 811
Mnemonic	
Deutsche Börse	ARL
Bloomberg (Xetra)	ARL GY
Reuters (Xetra)	ARL.DE
Issued share capital (number of bearer unit shares)	59,857,221

[1] XETRA® closing prices; [2] based on Xetra® year-end closing prices;

[3] There are no plans to distribute any dividends, in line with the strategy for 2023. On 31 August 2022, the Annual General Meeting had agreed not to distribute a dividend for the 2021 financial year. In compliance with the requirements published by the European Central Bank (ECB) on 15 December 2020, the Bank distributed € 0.40 per share in 2021 for the 2020 financial year.

Shareholder structure

Relative performance of the Aareal Bank share price

1 **4 February 2022**
Takeover offer by financial investors unsuccessful – Aareal Bank continues to drive its growth strategy forward

2 **24 February 2022**
Aareal Bank posts marked increase in profits for the financial year 2021, setting itself new growth targets

3 **5 April 2022**
Advent International and Centerbridge Partners consider a renewed takeover offer – 37 % of voting rights already secured

4 **6 April 2022**
Aareal Bank concludes Investment Agreement with bidder company led by Advent International and Center-bridge Partners

5 **5 May 2022**
Aareal Bank issues reasoned statement on renewed takeover offer by Atlantic BidCo GmbH

6 **11 May 2022**
Aareal Bank reports good operating performance in the first quarter of 2022 – additional loss allowance recognised for Russian exposure

7 **25 May 2022**
Successful voluntary public takeover offer by Atlantic BidCo – 60 % minimum acceptance level exceeded

8 **10 August 2022**
Aareal Bank reports good second-quarter results, despite challenging market environment

9 **31 August 2022**
Annual General Meeting of Aareal Bank AG elects six new Supervisory Board members

10 **10 November 2022**
Aareal Bank's strong operating performance in the third quarter largely offsets additional loss allowance for Russia

Group Management Report

Group Management Report

Fundamental Information about the Group

Business model

Aareal Bank AG, headquartered in Wiesbaden, Germany, is the parent company of the Group. Its shares are admitted to trading on the regulated market (geregelter Markt) of the Frankfurt Stock Exchange. Aareal Bank Group's strategy focuses on sustainable business success.

The strategic business segments of Aareal Bank Group are commercial property financing and services, software products and digital solutions for the property sector and related industries. The strategic business segments are broken down into the three segments Structured Property Financing, Banking & Digital Solutions and Aareon.

Structured Property Financing

In the Structured Property Financing segment, Aareal Bank facilitates property investments for its domestic and international clients, and is active in Europe, North America and the Asia/Pacific region. Aareal Bank finances commercial property investments, especially for office buildings, hotels, retail, logistics and residential properties, with a focus on existing buildings. By combining local market expertise with sector-specific know-how from the Group's head office, Aareal Bank can offer financing concepts that meet the special requirements of its domestic and international clients, as well as conclude structured portfolio and cross-border financings.

Aareal Bank manages its sales activities in the individual regions worldwide via a network of sales centres (hubs). In addition to the locally-based experts, the distribution centres for sector specialists covering the financing of hotels, retail and logistics properties, as well as those catering to the specific needs of investment fund clients, are located in Wiesbaden.

There are two regional hubs in Europe: one hub combines sales activities for the euro zone, with a focus on the Benelux countries, France, Germany, Italy and Spain. An additional hub focuses on sales activities outside the euro zone, with a focus on the UK[1)] and Central and Eastern Europe. Distribution in Northern Europe is managed from the head office in Wiesbaden. As before, the hubs have a network – comprising branches in London, Paris, Rome, Stockholm and Warsaw – at their disposal. Aareal Bank also has a branch office in Dublin, where it conducts exclusively Treasury business and holds securities. Representative offices are located in Madrid (until 31 July 2023), Moscow, and Istanbul.

Aareal Bank Group's activities on the North American market are carried out through the subsidiary Aareal Capital Corporation, operating from New York City. The Singapore subsidiary Aareal Bank Asia Limited conducts the sales activities in the Asia/Pacific region.

Funding

Aareal Bank is an active issuer of Pfandbriefe, which account for a major share of its long-term funding. Moody's Aaa rating of the Pfandbriefe confirms the quality of the cover assets pool. To cater to a broad investor base, Aareal Bank uses a wide range of other refinancing tools, including senior preferred and senior non-preferred bonds, as well as other promissory notes and bonds. Depending on market conditions, the Bank places large-sized public issues or private placements. In the Banking & Digital Solutions segment, the Bank also generates bank deposits from the housing industry, which represent a strategically important additional source of funding. Furthermore, it has recourse to institutional money market investor deposits, and to retail deposits via a trust model.

Banking & Digital Solutions

In the Banking & Digital Solutions segment, Aareal Bank Group offers its clients from the institutional housing industry, commercial property companies, as well as the energy and utilities industries, services for the management of properties for residential use and

1) Hereinafter refers to the United Kingdom of Great Britain and Northern Ireland.

the integrated processing of payment flows, amongst other things, thus contributing to a more efficient and sustainable structuring of its clients' fundamental business processes. With its BK01 software, it operates a procedure for the automated settlement of mass payments, in the German property industry. The procedure is integrated in licenced ERP systems. In conjunction with payment transactions processed via Aareal Bank's systems, deposits are generated that contribute significantly to Aareal Bank Group's refinancing base. Besides the German property industry, the German energy sector forms a second major client group of the segment for the services mentioned above. This enables the offer of further products, facilitating the cross-sector cooperation of client groups by realising synergies via digital processes. Aareal Bank Group is further strengthening its market position with its range of digital products and invoicing solutions within this segment. These products include mobile solutions for recording and processing meter readings, a platform solution for managing B2B payment processes and services, as well as end-customer communication offers and AI-supported invoicing and dunning solutions. The Banking & Digital Solutions segment also includes the First Financial Solutions, plusForta, BauGrund and CollectAI subsidiaries. The start-up objego, in which Aareal Bank holds an equity interest as part of a joint venture with ista, is also allocated to this segment.

Aareon

In the Aareon segment, the Aareon sub-group offers the European property industry and its partners user-oriented ERP software and digital solutions that simplify and automate processes, and support sustainable and energy-efficient operations. The integrated digital ecosystem Aareon Smart World, with the country-specific ERP systems at its core, connects property companies and their employees with clients, business partners as well as technical equipment in apartments and buildings using different digital solutions. The ERP systems are a starting point for cross-selling activities for the digital solutions. Aareon consistently invests in expanding Aareon Smart World's portfolio of products. This involves on the one hand the co-creative development of the digital ecosystem and the cooperation with PropTech companies, and targeted acquisitions on the other as part of the international growth strategy. Aareon Group has an international presence with offices in the DACH region, Finland, France, the UK, the Netherlands, Norway and Sweden, Aareon operates a development company in Romania.

Management system

Aareal Bank Group is managed using key financial performance indicators, taking the Group's risk-bearing capacity into account. Management takes place primarily at Group level, and is additionally differentiated by business segment. Group management is based on medium-term Group planning, prepared annually, which is geared towards the Group's long-term business strategy. An extensive (management) reporting system regularly provides the information required for management and monitoring purposes.

The following indicators implemented within the scope of business and return management are Aareal Bank Group's key financial performance indicators:

- **Group**
  - Net interest income (in accordance with IFRSs)
  - Net commission income (in accordance with IFRSs)
  - Loss allowance (in accordance with IFRSs)
  - Administrative expenses (in accordance with IFRSs)
  - Operating profit (in accordance with IFRSs)
  - Return on equity (RoE) after taxes[1)]
  - Earnings per ordinary share (EpS)[2)]
  - Common Equity Tier 1 ratio (CET1 ratio) (%) – Basel IV (phase-in)

[1)] RoE after taxes = consolidated net income excluding consolidated net income attributable to non-controlling interests and AT1 coupon (net) / average equity (IFRS) excluding non-controlling interests, AT1 bond and dividends
[2)] EpS = operating profit excluding income taxes, consolidated net income attributable to non-controlling interests, and AT1 coupon (net) / number of ordinary shares

- **Structured Property Financing segment**
  - New business[1]
  - Credit portfolio of Aareal Bank Group

- **Banking & Digital Solutions segment**
  - Average deposit volume from the housing industry
  - Net commission income (in accordance with IFRSs)

- **Aareon segment**
  - Sales revenue (in accordance with IFRSs)
  - Adjusted EBITDA[2]

The Group's existing risk management system is used to manage and monitor the individual risk exposures of Aareal Bank Group entities, in a centralised manner. All management-relevant information is systematically collected and analysed, to develop suitable strategies for risk management and monitoring. We also employ forecasting models for balance sheet structure, liquidity and portfolio development for strategic business and revenue planning. In addition to business-related management tools, we also use various other instruments to optimise our organisation and workflows. These include comprehensive cost management, centralised management of project activities and Human Resources controlling, for example.

Structured Property Financing also deploys supplementary management tools and indicators. The property financing portfolio is actively managed throughout Aareal Bank Group, with the aim of optimising its risk diversification and profitability. To develop risk- and return-oriented strategies for our portfolio, we evaluate market and business data, using this as a basis to simulate potential lending strategies, and to identify a target portfolio, which is part of Group planning. This helps us to identify – and to respond to – market changes at an early stage. Active portfolio management makes it possible for us to optimally allocate equity to the most attractive products and regions from a risk/return perspective, within the scope of our strategy. By taking into consideration maximum allocations to individual countries, products and property types in the portfolio, we ensure a high level of diversification and avoid risk concentrations.

The Banking & Digital Solutions and Aareon segments also have specific management indicators typical for the respective business. The deposit volume from the housing industry and net commission income are key financial performance indicators for the Banking & Digital Solutions segment. Aareon is managed on the basis of target figures commonly applied to software companies, such as sales revenue and adjusted EBITDA.

Report on the Economic Position

Macro-economic environment

2022 proved to be a difficult year for the global economy as a whole. The war in Ukraine that broke out at the beginning of the year and the reciprocal sanctions imposed by Western states and Russia have hit the European economy especially hard, in the form of higher prices for food and energy, and a temporary intensification of the problems already besetting supply chains. The economic and business climate also deteriorated on a more global scale during the course of 2022, especially in the second half of the year. High inflation rates dampened private consumption in many economies and put the brakes on the catch-up effects from the Covid-19 pandemic. Monetary tightening in the wake of high inflation also slowed economic development. While many countries benefited from the easing of contact restrictions, China's zero-Covid policy continued to burden its economic growth. Rising inflationary pressure also shaped developments on the financial markets: bond yields markedly increased in the face of monetary policy tightening, while equity markets also suffered some hefty price losses.

[1] New business = newly-originated loans plus renewals
[2] Earnings before interest, taxes, depreciation and amortisation before new products, Value Creation Programme (VCP), ventures, M&A activities and non-recurring effects

Economy

In the euro zone, real gross domestic product in 2022 climbed by 3.3 % compared with 2021 – meaning that economic momentum was rather subdued after the pandemic. In the spring, relaxations of Covid 19-related contact restrictions initially led to an increase in consumer spending, particularly on services. However, Russia's war of aggression against Ukraine, which began in February, led to sharp increases in energy prices and intensified existing supply chain problems, placing particular strain on the manufacturing industry. While the war had a dampening effect on demand and drove inflation worldwide, the euro zone was particularly affected by its impact due to its geographical proximity to and reliance on energy from Russia. Consequently, the euro zone's economic momentum progressively declined over the course of the year against a backdrop of elevated uncertainty, high energy price pressures, erosion of households' purchasing power, a weaker export environment and tighter financing conditions. Economic growth for the full year 2022 in the largest countries in the euro zone was 5.3 % in Spain, 3.8 % in Italy, 2.5 % in France and 1.7 % in Germany.

Countries in the European Union that do not belong to the euro zone also demonstrated different economic developments. Sweden, for example, achieved economic growth of 2.9 % in 2022 and the Czech Republic 2.5 % growth year-on-year. Poland's economy, on the other hand, expanded by a much stronger 5.7 %.

At the start of the year, economic activity in the UK was dynamic across all sectors, with those services involving close contact benefiting most from the easing of contact restrictions. Economic momentum started to slow in the second quarter, with the industrial sector facing rising prices for intermediate products, supply bottlenecks, and labour shortages. In the second half of the year, consumption-related services suffered from depressed consumer sentiment as a result of high inflation rates and a decline in real wages. Sweeping tax cuts were announced in the autumn, but were largely not implemented following financial market turmoil, culminating in a change of government. All in all, economic output in 2022 rose by 4.1 % compared with 2021.

In the US, economic output rose by a total of 2.1 % in 2022 compared to the previous year, although the economy still contracted in the first half of the year. The economic slowdown was attributable to a decline in domestic demand as a result of high inflation rates, tightened monetary policy and persisting supply chain issues. However, private consumption, a key driver of the economy, continued to rise, but came under increasing pressure from high inflation rates and tighter financing terms. Buoyed by an increase in exports, the economy expanded again in the second half of the year, largely due to high global demand for fossil fuels. Meanwhile, the increasingly restrictive financing terms started to kick in, affecting and reducing rate-sensitive investments in particular. In Canada, economic performance at the end of 2022 was still 3.3 % higher than in the previous year.

China's zero-Covid strategy – where just a few infections were enough to incite a drastic government response – continued to shape the course of the economy, causing the most severe economic and social distortions since 2020. Ongoing problems at some property conglomerates also had a braking effect, to which the government responded with a more expansive monetary policy, a prescribed easing of credit guidelines and infrastructure investments. All in all, economic output in 2022 rose by 3.0 % relative to the previous year. At 3.6 % over the previous year, Australia's growth rate in 2022 was more dynamic than for many other advanced economies. Exports and private consumption, which benefited from a strong labour market coupled with low unemployment, had a particularly positive effect.

Despite the generally challenging environment, labour markets in many economies performed well and continued to recover from the Covid-19 pandemic, and job creation proceeded apace especially in the services sector. It was, however, limited by a labour shortage, which was quite pronounced in some places. The unemployment rate in the euro zone stood at 6.6 % at the end of the year, a historic low. The same applied to the US, where the strong job creation of the previous year continued, with employment reaching new record levels from August onwards. At year-end, the unemployment rate was 3.5 %.

Annual rate of change in real gross domestic product

%	2022[1]	2021[2]
Europe		
Euro zone	3.5	5.3
Belgium	3.1	6.1
Germany	1.9	2.6
Finland	1.8	3.0
France	2.6	6.8
Italy	3.9	6.7
Luxembourg	2.1	5.1
Netherlands	4.2	4.9
Austria	4.8	4.7
Spain	5.5	5.5
Other European countries		
Denmark	3.1	4.9
United Kingdom	4.1	7.6
Poland	5.8	6.8
Russia	-2.3	4.8
Sweden	2.8	4.8
Switzerland	2.0	4.2
Czech Republic	2.5	3.5
North America		
Canada	3.4	5.0
USA	2.1	6.0
Asia/Pacific		
Australia	3.6	5.2
China	3.0	8.1
Maldives	13.7	41.8

[1] Preliminary figures; [2] Adjusted to final results

Financial and capital markets, monetary policy and inflation

On the financial markets, the focus was no longer on the Covid-19 pandemic, but rather on the higher inflation rates and expectations as well as the increasingly gloomy macro-economic environment. Major central banks started to tighten their monetary policy very significantly or announced their intention to do so. As a result, government bond yields rose sharply, not least because major central banks signalled that they would raise interest rates further in order to fulfil their mandate.

Whilst the European Central Bank (ECB) continued to follow a very accommodating path at the start of the year in order to promote favourable financing conditions for governments and the real economy, and to support economic recovery, it announced a monetary policy turnaround in June, giving in to broad inflationary pressure. The ECB raised key interest rates at each of its four meetings between July and December by a total of 250 basis points to 2.50 % (main refinancing rate), 2.00 % (deposit rate) and 2.75 % (marginal lending rate). In December, the ECB Governing Council pledged to keep raising key interest rates, depending on data, also to prevent a permanent shift in inflation expectations. A decision was also taken to pare back the asset purchase programme (APP) portfolio from March 2023 onwards. Net asset purchases under the programme had been discontinued as of July 2022. Accordingly, principal payments for maturing assets bought under the pandemic emergency purchase programme (PEPP) will continue to be reinvested at maturity until at least the end of 2024. In the event of renewed market fragmentation, the Governing Council reserves the right to apply flexibility in reinvesting redemptions across time, asset classes and jurisdictions at any time. Furthermore, in the second half of the year, the terms of targeted longer-term refinancing operations (TLTRO 3) were changed retroactively, and a transmission protection instrument (TPI) was adopted. The TPI is intended to ensure a seamless return to normal monetary policy in the euro zone and to prevent an excessive tightening of financial terms in individual member countries.

With inflation above 2 % over the longer term and a tight labour market, the US Federal Reserve (Fed) already ended its government bond and mortgage-backed security purchase programme in the first quarter and started to reduce its securities holdings in June 2022. Furthermore, the Fed raised its key interest rate a total of seven times during the year, to a target range between 4.25 % and 4.50 %. It also indicated further interest rate hikes, as did the ECB.

Faced with a similarly tight labour market and high inflation, in 2022 the Bank of England increased its base rate at eight consecutive meetings, taking the key interest rate from 0.25 % to 3.50 %. A series of unfunded tax cuts by the UK government, initially announced and later abandoned, led to an abrupt rise in government bond yields in September. This prompted the Bank of England, despite its tightening of monetary policy, to make temporary purchases of government bonds and implement further short-term support measures.

Other major central banks lifted their key rates, too: the Bank of Canada raised its key interest rate to 4.25 % in 2022, the Swedish Riksbank to 2.5 %, and the Reserve Bank of Australia to 3.1 %.

Short-term interest rates[1)] in the euro zone at year-end 2022 were above those for year-end 2021. The same applied to the pound sterling, the Swedish krona, and the Australian dollar. The increase was particularly pronounced in the US dollar and the Canadian dollar. Long-term interest rates[2)] rose in all of the currency areas that are relevant to Aareal Bank. Nominal yields on ten-year government bonds also painted a uniform picture and rose year-on-year.

Monetary policy in the individual currency areas, differing economic outlooks and inflation expectations also shaped the currency markets in 2022. The euro lost value vis-a-vis the US dollar in the course of the year, with significant volatility observed at times. Russia's war of aggression against Ukraine, a worsening economic outlook and the energy crisis were among the factors that weighed on the European common currency. After temporarily falling below the EUR/USD parity, the euro strengthened in the fourth quarter against a backdrop of reduced energy risks. At the end of the year, the exchange rate was USD 1.07 to the euro and therefore below the rate of 31 December 2021 (USD 1.13 to the euro). The euro initially depreciated against the Canadian dollar in the first half of the year, but recovered in the second half, ending the year unchanged at CAD 1.44 to the euro. Against the British pound, the euro rose over the course of the year from GBP 0.84 to the euro at the beginning of the year to GBP 0.89 at the end of the year. The UK's economic outlook darkened in the second half of the year, allowing the euro to gradually appreciate against the pound – despite monetary tightening by the Bank of England. After an overall volatile performance, the euro appreciated vis-a-vis the Swedish krona, from SEK 10.25 to the euro at the beginning of the year to SEK 11.12 at the end of the year. The euro remained virtually unchanged relative to the Australian dollar, and appreciated from AUD 1.56 to AUD 1.57 to the euro.

Inflation increased sharply in many economies in 2022, and clearly exceeded the target inflation rates defined by the central banks for their respective currency area. Aside from markedly higher core inflation rates, inflation drivers were higher energy and commodity costs, along with food price pressure as a result of the war in Ukraine. While supply chains disrupted by the effects of the Covid-19 pandemic still contributed to price rises in the first half of the year, supply bottlenecks began to ease in the second half. In the US, this contributed to a decline in the rise in price levels from July onwards. In areas that had been particularly hit by the Covid-19 crisis, such as the hospitality industry, high demand met with limited supply and labour shortage strains. Especially in the US and the UK, the stressed labour market incited wage increases, which also contributed to the inflation development. In the euro zone, inflation reached 9.2 % at the end of the year compared with the same month of the previous year: in the US it was 6.5 % and 10.5 % in the UK.

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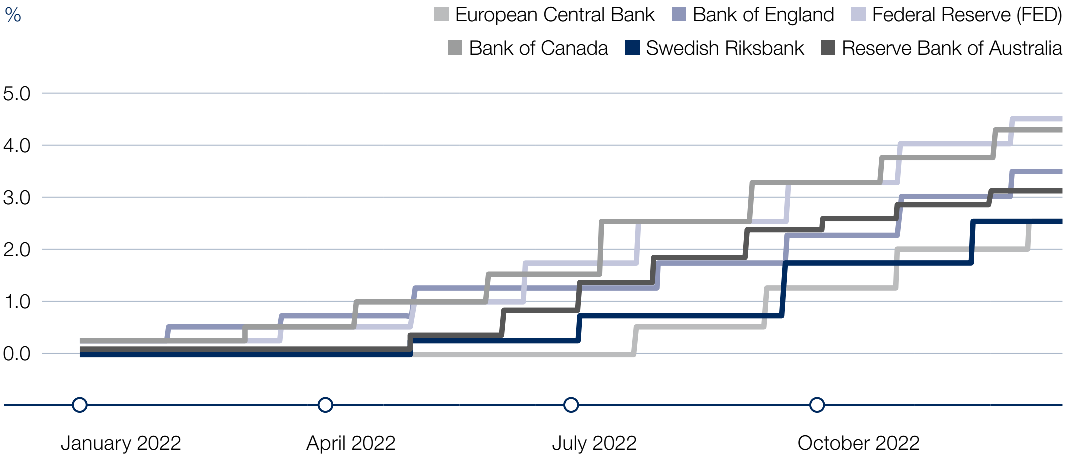
1) Calculated on the basis of 3-month Euribor, LIBOR or other comparable rates for other currencies
2) Calculated on the basis of swaps in the respective currencies

Key rate developments in 2022[1)]



1) The upper level of the corridor for Fed key rates is shown in the chart.

The ongoing Covid-19 pandemic and the Russian war of aggression against Ukraine caused a turnaround in international monetary policy and increased uncertainty on the capital markets. This led to record levels of covered bond issues, underlining their importance as a crisis-proof instrument. After the first monetary policy adjustments in the course of the first three quarters of the year under review, covered bond yields rose sharply, remaining on a high level in the fourth quarter.

Regulatory environment

The environment in which banks are operating continues to be defined by highly dynamic regulatory requirements, as well as by changes in banking supervision. This includes, in particular, implementation of the final draft of the Basel III framework into EU law (known as “Basel IV”), which was resolved by the Basel Committee (BCBS). The EU Commission submitted proposals on this on 27 October 2021, which are now to be finalised as part of the trilogue procedure. The proposed first-time application of the new regulation is 1 January 2025 – two years later than initially planned by the BCBS.

The first draft of the seventh MaRisk amendment was published in September 2022. It focuses on implementing the EBA guidelines on loan origination and monitoring, new requirements for banks’ proprietary property business, and the management of sustainability risks. It is expected that the seventh MaRisk amendment is to be implemented by the end of 2023.

Moreover, both national and European regulators are imposing various new requirements – including in connection with IT/information security risks, or regarding the prevention of money laundering/terrorist financing and tax evasion. Furthermore, politicians and banking supervisors deem it necessary to establish sustainability more strongly with society, and as a regulatory requirement within the economy. To this end, a standard taxonomy was introduced in the EU, which provides the basis for the classification of economic activities with regard to sustainability targets. The taxonomy forms the basis for a large number of disclosure obligations for financial and non-financial entities. Initial minor disclosure requirements for environmental, social and governance (“ESG”) matters were applicable as of 31 December 2021, with the scope increasing over time. Furthermore, the ECB conducted its first climate stress test in 2022. The requirement introduced for the first time under CRR II for large listed institutions to include qualitative and quantitative information on ESG risks in the regulatory disclosure report entered into effect on 31 December 2022.

The ECB’s Supervisory Review and Evaluation Process (SREP) ensures a common approach on the supervisory review of banks, within the framework of Pillar 2. The SREP is built around a business model analysis, an assessment of governance, as well as of the capital and liquidity risks. The results of the individual areas are aggregated in a score value, from which the ECB derives supervisory measures on holding additional capital and/or additional liquidity buffers.

Sector-specific and business developments

Structured Property Financing segment

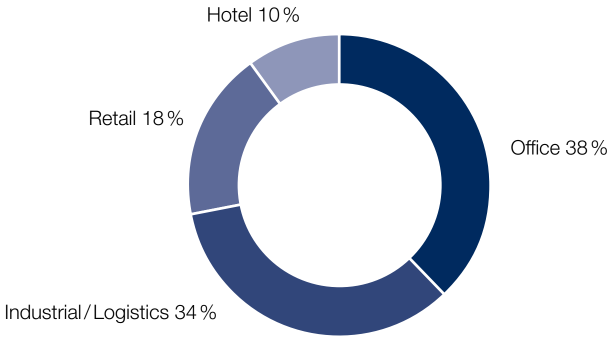
Economic and monetary developments are also being reflected in the commercial property markets. Rising interest rates increased financing costs for commercial property, sometimes considerably, and slowed down transaction activity relative to the previous year. Uncertainty among market participants due to the overall economic gloom and risk also depressed the transaction markets. Price expectations of sellers and buyers diverged and increasingly fewer properties were transferred, which resulted in a decline in global transaction volume compared to the previous year. In North America, volume was above the previous year's level up to and including the third quarter, followed by a weak fourth quarter, ending the year around 12 % lower than for the full year 2022. In the other regions, momentum started to slow as early as in the third quarter. Transaction volumes in Europe and the Asia/Pacific region fell by around 17 % and around 29 % respectively year-on-year.

In all regions, almost every property type recorded a decline in transaction volume compared to 2021, except for retail property in North America, where higher volumes were seen. The downturn in office properties affected all regions by roughly the same amount, and logistics properties saw a global annual decline in volume for the first time since 2016.

Lenders focused their interest on housing and logistics properties, food stores, as well as on office properties in preferred locations. Properties which meet sustainability criteria, such as energy-efficient management, saw a rise in demand. During the first half of the year, commercial property continued to be supported by a recovery from the Covid-19 pandemic. The second half of the year, however, saw increasing economic and monetary uncertainty: For example, construction phases were delayed since energy and construction materials were subject to price hikes and supply bottlenecks. On the back of rising interest rates linked to inflation, financing costs for newly-financed commercial properties increased in many markets since the start of 2022. Similarly, transaction yields have also moved higher, depending on the market and type of property. At the same time, loan-to-value ratios on the financing markets fell moderately or remained stable. Strong investor interest in the logistics sector ensured that the margins for office and logistics properties not only converged, but that in some markets logistics financings were more competitively priced.

Share of transaction volume observed worldwide in 2022

%



In an environment defined by uncertainty, Aareal Bank generated new business[1] of € 8.9 billion (2021: € 8.5 billion), which was above the communicated target corridor of € 7 billion to € 8 billion. This was mainly attributable to a higher than expected volume of renewals. The share of newly-originated loans was 67 % (2021: 63 %) or € 6.0 billion (2021: € 5.4 billion). Renewals amounted

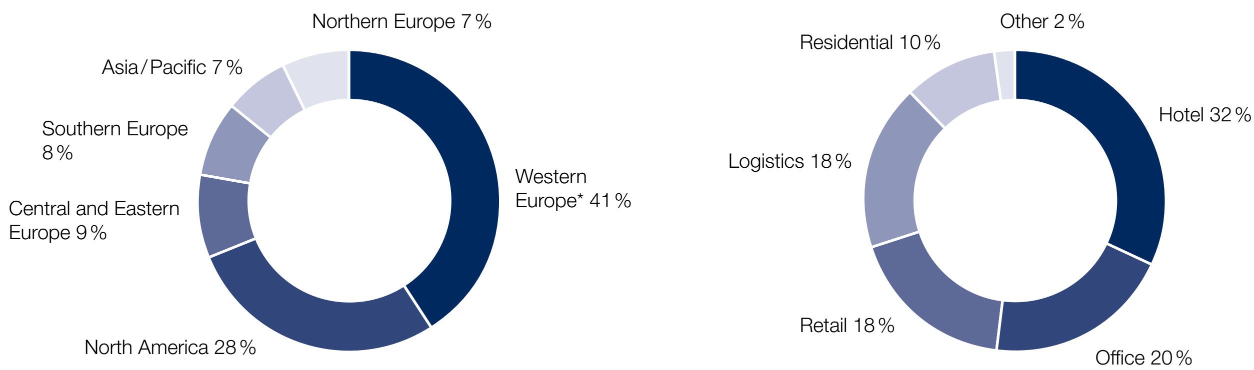
[1] New business, excluding private client business and former WestImmo's local authority lending business

to € 2.9 billion (2021: € 3.1 billion). Green financings of approximately € 1.0 billion were concluded for the full year. The volume of green financings therefore increased by around € 1.8 billion to a total of € 2.2 billion, as some existing clients also issued the required undertaking and related certificates for the first time. These green loans meet the high energy efficiency requirements of the “Aareal Green Finance Framework” and the client undertakes to meet these requirements throughout the term of the loan. The criteria for classification as a green building comprise the EU taxonomy criteria, an above-average sustainability rating by recognised rating agencies or compliance with conservative energy efficiency criteria. All in all, Aareal Bank Group’s property financing portfolio had grown to € 30.9 billion by the end of 2022.

At 65 % (2021: 66 %), Europe accounted for the largest share of new business, followed by North America with 28 % (2021: 28 %) and the Asia/Pacific region with 7 % (2021: 6 %).[1]

New business[2] 2022

by regions | by type of property (%)



* Incl. Germany

[2] New business, excluding private client business and former WestImmo’s local authority lending business

With a share of 32 %, hotel properties accounted for the largest share in new business in terms of property type (2021: 26 %), followed by office property with 20 % (2021: 30 %), ahead of retail property with 18 % (2021: 22 %) and logistics property with 18 % (2021: 19 %). Residential property represented 10% of the portfolio (2021: 3 %), while 2 % was attributable to other property types (2021: 0 %). “Other property types” exclusively referred to life science properties containing office space: these are heavily sought after by investors.

Europe

Transaction volumes declined by around 17 % in Europe. Declining activity was observed in most European countries, and was particularly pronounced in Sweden, Germany and the UK. In France, however, volumes remained constant, while Italy and Spain even recorded a year-on-year increase. All property types were affected by the decline across Europe as a whole, with retail property posting the smallest volume decrease. In the case of hotel properties, transaction volumes have not yet returned to the levels seen before the Covid-19 pandemic, despite a significant increase in international and domestic travel. Investor positions changed marginally compared to the previous year. Cross-border and institutional investors accounted for the majority on the buy side in 2022, while private investors and REIT structures tended to be on the sell side.

[1] New business is allocated to the individual regions on the basis of the location of the property used as collateral. For exposures not collateralised by property, allocation is based on the borrower's country of domicile.

As for office properties, both average rents in the prime segment, and average rents for the overall market, increased slightly over the course of 2022. While some sub-markets, e.g. central locations in Amsterdam, Milan and Paris, also saw higher rent increases, rents in Frankfurt and Helsinki virtually remained unchanged. Retail property rents remained stable in the vast majority of markets, except for London and Milan where high-street rents increased, and Barcelona and Madrid where shopping centre rents declined. Rents for logistics properties benefited from persistent strong demand and historically low vacancy rates in the entire segment, continuing the positive development of the last few years.

While prime yields for office properties changed only slightly in the first half of the year, they rose in the second half of the year in line with the general increase in interest rates and financing costs on a European average. This picture was observed in almost all major European cities. The German and Dutch markets recorded the strongest rises, with yields in secondary locations generally increasing more strongly. As for logistics properties, the long-term trend of falling yields has reversed since the second quarter: this development was particularly pronounced on the British, French and Dutch markets. Looking at retail properties, prime yields for both shopping centres and high-street properties rose on a European average, which was essentially reflected in secondary locations as well. As with office and logistics properties, the yield increases only became more and more apparent during the second half of the year.

In 2022, the ongoing recovery of global travel from the Covid-19 pandemic was clearly felt in the hospitality and hotel sector. Domestic travel has seen the strongest recovery so far, whilst longer distance tourism recovered more slowly, probably due to travellers' greater familiarity with closer travel destinations and the higher sense of security that comes with it. In this environment, occupancy and revenue per available room in European hotels increased year-on-year on average, even though pre-crisis levels had not been reached for all markets by the end of the year.

The Bank originated new business of € 5.8 billion (2021: € 5.6 billion) in Europe during the year under review. As in previous years, at around € 3.7 billion (2021: € 3.9 billion), Western Europe accounted for the largest share of this. This was followed by Central and Eastern Europe, where new business of € 0.8 billion (2021: € 1.0 billion) was generated mainly in Poland, € 0.7 billion (2021: € 0.5 billion) in Southern Europe and € 0.6 billion (2021: € 0.2 billion) in Northern Europe.

North America

Transaction volumes in North America decreased by around 12 % in 2022 compared with the previous year. Despite this decline, volumes were still above the long-term average and did not fall as much as in other regions. Except for the last quarter, the number of transactions was higher than the long-term average, following reduced activity at the peak of the Covid-19 pandemic. Cross-border and institutional investors were on the buy side for the most part, while REIT structures and private investors were predominantly sellers.

Average rents offered for prime and secondary office properties in US metropolitan areas remained stable in 2022, which was also true for relevant individual markets such as New York or Chicago. In San Francisco, rents declined slightly compared with the previous year. In contrast, the average shopping mall rents in the US were up on a national average. The rise was most pronounced in Atlanta, Chicago and Dallas, whilst rent levels in New York remained stable and fell in San Francisco. Rents for logistics properties again rose significantly, averaging around 12 % nationwide. An increase was reported in all the important individual markets.

Yields on prime and secondary office properties remained at almost unchanged levels in 2022 and have fallen slightly on average in the main metropolitan areas, owing to the fundamental availability of market liquidity and readiness to provide financing. Yields on retail properties declined slightly on a national average, but differences were observed here between metropolitan areas. For example, yields fell in Dallas, but remained stable in the Chicago and New York markets. In San Francisco, however, there was a slight year-on-year increase in the yield level. Logistics properties continued to see falling yields on average nationwide.

Hotels in North America saw an increase in occupancy and revenues over the course of the year. Occupancy ratios and revenues per available room in the luxury & upper upscale category, and also in the market as a whole, increased significantly on average in the US between January and December, driven not only by strong domestic tourism, but also by an increasing number of visitors from abroad. A complete recovery of international tourism can still take several years. In Canada, key hotel indicators developed even better in 2022.

In North America, new business of € 2.5 billion (2021: € 2.4 billion) was originated in 2022, most of which was attributable to the US.

Asia/Pacific region

Transaction volumes for commercial property in the Asia/Pacific region were roughly 29 % lower in 2022 than in the previous year, with sharp declines also seen in Australia (-24 %) and China (-40 %). The decline in momentum that began in the second quarter accelerated in the second half of the year, affecting all the key markets and sectors. Cross-border and institutional investors were on the buy side for the most part, whilst REIT structures and private investors were predominantly sellers.

Prime rents for logistics properties in the Australian metropolitan areas of Sydney, Perth and Melbourne continued to show a rising trend in 2022 compared to the previous year. Rents for retail properties developed differently across the Chinese metropolitan areas; they stagnated in Shanghai and Beijing and fell moderately in Tianjin.

Whilst the logistics property yields in Australia were still stable in the first half of the year compared to the previous year, yields started to rise in the second half of 2022. At year end, increases in the key Australian markets ranged between 40 and 60 basis points compared with the previous year. In contrast, yields for Chinese retail properties only saw a marginal increase.

Hotels in the Asia/Pacific region once again showed a recovery in 2022, sometimes remarkable, due to the easing of contact and travel restrictions in many countries. However, the pace of recovery across the region was mixed, and whilst domestic tourism recovered to pre-pandemic levels, international tourism continued to lag behind. Travel restrictions remained in place for some markets and for China this led to a decline in occupancy and revenues compared to the previous year. But overall, strong growth in occupancy rates across the entire region increased revenue per available room relative to 2021. The Maldives was among the destinations that recorded a significant increase in visitors. A total of 1.7 million tourists visited the island nation in 2022 compared with around 1.3 million in the previous year. In fact, visitor numbers were back to the pre-pandemic levels of 2019.

The Bank originated new business of € 0.6 billion in the Asia/Pacific region in 2022 (2021: € 0.5 billion), most of which was attributable to Australia.

Banking & Digital Solutions segment

The housing and commercial property sectors proved stable market segments, despite the fact that the year under review continued to be affected not only by the Covid-19 pandemic but also the war in Ukraine and the subsequent surge in energy costs and high inflation. These developments, combined with rising interest rates, have a direct impact on construction projects, making new construction measures and energy-efficient refurbishments more expensive. Moreover, conventional construction costs rose sharply.

Rising construction and purchase prices have the potential to increase demand pressure on rental stock, which is further driven by a significant influx of Ukrainian refugees. Furthermore, new residential building is lagging behind required numbers and policy expectations (400,000 new homes per year): even though around 380,000 new homes were approved for construction in 2021, the number of new builds fell for the first time, down 4.2 % to just over 290,000 compared with the previous year. In 2022, the number of housing completions is expected again not to exceed 320,000.

In 2022, new-build rents rose by 1.9 % in the municipal districts and by 1.2 % in rural districts. Year-on-year (compared with the fourth quarter of 2021), the increase in Germany amounted to 6.3 %. Rents for existing properties also rose by an average of 1.7 % in the first half of 2022.

Although housing and energy industry customers are confronted with significantly rising ancillary costs, whilst having to cope with reduced purchasing power, there have been no major rental defaults to date.

Over the course of the year under review, we have expanded our property-related offerings to include functional enhancements to existing products, in cooperation with our subsidiary Aareal First Financial Solutions. Our acquisition of payment solutions provider Collect Artificial Intelligence GmbH (CollectAI) for AI-based intelligent invoicing and dunning has also enabled us to expand the range of services we offer in the Banking & Digital Solutions segment, to include end-customer communication and AI-based solutions for interactive invoicing and intelligent dunning.

Favourable interest rate developments mean that we can now offer clients fixed-term deposits and deposits at notice again.

At present, more than 4,000 corporate clients throughout Germany are using our process-optimising products and banking services. The segment's volume of deposits averaged € 13.4 billion in the financial year 2022 (2021: € 12.0 billion), exceeding our original expectations. Net commission income of € 31 million increased as planned (2021: € 28 million). The interest rate turnaround initiated by the European Central Bank already contributed to an increase in consolidated operating profit in our BDS segment. We benefit from the trust our clients place in us, which is reflected in the high volume of deposits we receive as a result.

Aareon segment

Aareon is a technology provider for the European property industry and its partners. The company digitalises property management with user-oriented software solutions that simplify and automate processes, support sustainable and energy-efficient operations, and interconnect all process participants. Aareon pursues an international growth strategy with the aim of transforming Aareon into a "Rule of 40" SaaS company, with its combined EBITDA margin and revenue growth set to exceed 40% by 2025.

Hartmut Thomsen was appointed as the new CEO of Aareon AG with effect from 1 April 2022. Dr Ernesto Marinelli joined the Management Board on 1 July 2022 to assume the newly created Management Board function of Chief People Officer (CPO), along with Rumyana Trencheva, who succeeded Sabine Fischer as Chief Revenue Officer (CRO). The new members of the Management Board launched a number of important strategic initiatives during 2022, which will contribute to Aareon's growth strategy and increase profitability, as well as generating added value for clients. As part of its inorganic growth, Aareon acquired Momentum Software Group, a Swedish provider of SaaS property management and energy monitoring, in June 2022.

Aareon's revenue increased by 15% to € 308 million in the 2022 financial year (2021: € 269 million), in line with the forecast range of between € 305 million and € 325 million, in what is becoming an increasingly challenging environment. This was driven by the increase in sales of both digital solutions and ERP software. Adjusted EBITDA[1)] amounted to € 75 million (2021: € 67 million), in line with the forecast range between € 73 million and € 78 million.

Aareon is well on its way to becoming a "Rule of 40" SaaS company. In 2022, combined revenue growth and adjusted EBITDA margin totalled 39% (2021: 29%), which is already close to the target level. The transformation process towards SaaS and subscription solutions continued to be on track (25% growth). SaaS makes cloud-based software more easily accessible to clients, thus increasing the share of recurring revenue compared to total sales to 74% (2021: 71%).

Revenue from ERP software solutions was significantly above the previous year's level. As part of the process to transform Aareon to a SaaS company, the SaaS campaign for the new product generation Wodis Yuneo was continued in the Germany/Austria/Switzerland (DACH) region, while other process-oriented product packages were offered to meet clients' individual needs and simplify the offer structure for clients. As a result, sales of Wodis Yuneo/Wodis Sigma, RELion, the ERP system for the commercial property sector, and SAP® solutions, including Blue Eagle, markedly increased year-on-year. immotion®, the ERP solution from GAP Group, which was acquired during the year under review, made a significant contribution to revenue.

Tobias (Netherlands), Arthur (UK) and Twinq, the Dutch management software for residential owners' associations, were the main contributors to the success of the international ERP business. Momentum, the SaaS property management system, also made a contribution to revenue. Revenue from Xpand, the existing ERP solution in the Scandinavian market, PremHabitat, the French ERP system, REMS, the ERP system for the commercial property industry in the Netherlands, and QL, the UK ERP system featuring the new QL Yuneo product generation, was slightly down on the previous year, whilst revenue from the French ERP system Portalimmo was slightly up compared to 2021.

BauSecura's insurance business in the DACH region developed favourably. Revenue generated by Aareon Cloud Services in the DACH region and in the Netherlands remained roughly in line with the previous year.

[1)] Earnings before interest, taxes, depreciation and amortisation before new products, Value Creation Programme (VCP), ventures, M&A activities and non-recurring effects

In terms of digital solutions, demand for BRM (Building Relationship Management) solutions was stronger than in the previous year; AiBATROS®/epiqr®, which meets the requirements for sustainable portfolio management, was particularly popular in the DACH region. Abroad, notable sales contributions were made by British Tactile Ltd's ("Fixflo") BRM solution; Aareon acquired the company in 2021. Facilitor, the facility management solution, and Trace & Treasury, the financial and asset management solution, both in the Netherlands, also increased sales. Momentum Software Group's energy monitoring solution also boosted revenue.

Demand for Customer Relationship Management (CRM) solutions exceeded the previous year's level in nearly all markets. wohnungshelden, acquired in 2021, made a particularly positive revenue contribution in the DACH region. Supplier Relationship Management (SRM) solutions also performed well. In the DACH region, Mareon's service portal that connects craftsmen, and particularly those for occupant change management, contributed to revenue. Since 2021, occupant change management has been successfully used in combination with the CRM portal and app as an EED (Energy Efficiency Directive)-compliant solution for the property industry's obligations to provide information to its tenants. Revenue from Workforce Relationship Management (WRM) solutions also increased overall. Mobile solutions made a significant contribution here. In the Digital Office product group, revenue from Archiv kompakt for digital archiving was also clearly above the previous year.

Financial Position and Financial Performance

Financial performance

Group

Consolidated net income of Aareal Bank Group

€ mn	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
Net interest income	702	597
Loss allowance	192	133
Net commission income	277	245
Net derecognition gain or loss	1	23
Net gain or loss from financial instruments (fvpl)	26	-30
Net gain or loss from hedge accounting	-2	-5
Net gain or loss from investments accounted for using the equity method	-2	-2
Administrative expenses	571	528
Net other operating income/expenses	0	-12
Operating profit	**239**	**155**
Income taxes	86	87
Consolidated net income	**153**	**68**
Consolidated net income attributable to non-controlling interests	0	1
Consolidated net income attributable to shareholders of Aareal Bank AG	153	67

At € 239 million, consolidated operating profit for the 2022 financial year reached the upper end of the target range and was significantly higher than in the previous year (€ 155 million), reflecting strong operating performance.

Essentially, net interest income of € 702 million was significantly higher than in the previous year (€ 597 million), as expected, mainly due to a year-on-year increase in the credit portfolio and good margins because of first positive effects from higher market interest rates on the deposit-taking business and an improved funding mix.

Loss allowance totalled € 192 million (2021: € 133 million). This included an addition to loss allowance of € 134 million for the Bank's exposure to Russia which is being run down, determined in line with IFRS 9 based on various probability-weighted scenarios: the highest probability was attributed to the scenario of a sale of receivables, the second-highest probability to the scenario of a total default. A third scenario assumed the renewal and repayment of receivables. This brings coverage of the outstanding exposure (around € 213 million) to more than 60 %. The exposure could not be serviced due to the sanctions imposed in Russia (transfer risk), even though the borrower is willing and able to pay. The potential additional impact of the war in Ukraine and the economic consequences of the mutual sanctions imposed are very difficult to estimate at this point in time.

Furthermore, we moved a new LGD model for our commercial property finance portfolio (which complies with new EBA guidelines for rating procedures) into production as at the end of the first half of the year; this new model also serves as a basis for model-based Stage 1 and Stage 2 loss allowance. The model effect due to this conversion was approximately € 10 million. In addition, Aareal Bank has recognised a management overlay of approximately € 11 million for all property loans in Stage 1 and Stage 2, in order to account for macro-economic uncertainty affecting economic forecasts to an extraordinary extent, given the impact of the Ukraine war. Other than that, there were only few loan defaults, a reflection of the portfolio's high quality and clear recovery trends given the end of the pandemic.

Net commission income also increased, as expected, to € 277 million (2021: € 245 million) on the back of higher sales revenue at Aareon and in the Banking & Digital Solutions segment.

The net derecognition gain or loss amounted to € 1 million (2021: € 23 million). Following the decision of the Governing Council of the ECB on 27 October 2022 to adjust the terms of the current third series of the targeted longer-term refinancing operations (TLTRO 3), Aareal Bank already repaid € 4.3 billion of the € 5.3 billion TLTROs in November 2022. As a result of the unilateral change to the contractual terms, a valuation loss of € 24 million was realised with regard to the interest rate hedges entered into in this context, which offset the market-driven effects from early loan repayments.

Net gain or loss from financial instruments (fvpl) and net gain or loss from hedge accounting in the aggregate amount of € 24 million (2021: € -35 million) was mainly incurred from positive valuation effects resulting from market developments for currency and interest rate hedging derivatives, due to the strong market dynamics and coming from negative values at the beginning of 2022. To reduce volatility in the income statement brought about by these items, the Bank had concluded additional hedges in the first half of 2022.

Administrative expenses rose to € 571 million (2021: € 528 million) as a result of two factors: on the one hand, business expansion, especially at Aareon; on the other hand, transaction costs incurred by the successful completion of the voluntary public offer made by Atlantic BidCo. Excluding transaction costs, the Bank's costs remained stable. It achieved this by effectively pursuing its strategy of growth at low marginal costs. The cost/income ratio in the banking business (which, in line with common practice in the banking sector, does not include the bank levy and contributions to the deposit guarantee scheme) improved to 40 % and demonstrates Aareal Bank's high cost efficiency, even in a European comparison.

Net other operating income/expenses amounted to € 0 million (2021: € -12 million). It was burdened in the previous year by € 11 million in interest on tax back payments.

All in all, consolidated operating profit for the 2022 financial year totalled € 239 million, after € 155 million in 2021. Taking into consideration income taxes of € 86 million (2021: € 87 million) and non-controlling interest income of € 0 million, consolidated net income attributable to shareholders of Aareal Bank AG amounted to € 153 million (2021: € 67 million). Income taxes were burdened in the previous year by the consideration of new findings on the tax treatment of a legacy fund investment which was sold in 2012. Assuming the pro rata temporis accrual of net interest payments on the AT1 bond, consolidated net income allocated to ordinary shareholders stood at € 138 million (2021: € 53 million). Earnings per ordinary share (EpS) of € 2.32 (2021: € 0.89) and RoE after taxes of 5.0 % (2021: 2.1 %) were within the forecast.

Structured Property Financing segment

Segment result

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net interest income	627	560
Loss allowance	192	133
Net commission income	6	8
Net derecognition gain or loss	1	23
Net gain or loss from financial instruments (fvpl)	26	-30
Net gain or loss from hedge accounting	-2	-5
Net gain or loss from investments accounted for using the equity method	0	0
Administrative expenses	260	256
Net other operating income/expenses	-6	-13
Operating profit	**200**	**154**
Income taxes	70	82
Segment result	**130**	**72**

As expected, net interest income of € 627 million in the segment was significantly higher than in the previous year (€ 560 million), mainly due to a year-on-year increase in the credit portfolio, good margins, and an improved funding mix.

Loss allowance totalled € 192 million (2021: € 133 million). This included an addition to loss allowance of € 134 million for the Bank's exposure to Russia which is being run down, determined in line with IFRS 9 based on various probability-weighted scenarios: the highest probability was attributed to the scenario of a sale of receivables, the second-highest probability to the scenario of a total default. A third scenario assumed the renewal and repayment of receivables. This brings coverage of the outstanding exposure (€ 213 million) to more than 60 %. The exposure could not be serviced due to the sanctions imposed in Russia (transfer risk), even though the borrower is willing and able to pay. The potential additional impact of the war in Ukraine and the economic consequences of the mutual sanctions imposed are very difficult to estimate at this point in time.

Furthermore, we moved a new LGD model for our commercial property finance portfolio (which complies with new EBA guidelines for rating procedures) into production as at the end of the first half of the year; this new model also serves as a basis for model-based Stage 1 and Stage 2 loss allowance. The model effect due to this conversion was approximately € 10 million. In addition, Aareal Bank has recognised a management overlay of approximately € 11 million for all property loans in Stage 1 and Stage 2, in order to account for macro-economic uncertainty affecting economic forecasts to an extraordinary extent, given the impact of the Ukraine war. Other than that, there were only few loan defaults, a reflection of the portfolio's high quality and clear recovery trends given the end of the pandemic.

The net derecognition gain or loss amounted to € 1 million (2021: € 23 million). Following the decision of the Governing Council of the ECB on 27 October 2022 to adjust the terms of the current third series of the targeted longer-term refinancing operations (TLTRO 3), Aareal Bank already repaid € 4.3 billion of the € 5.3 billion TLTROs in November 2022. As a result of the unilateral change to the contractual terms, a valuation loss of € 24 million was realised with regard to the interest rate hedges entered into in this context, which offset the market-driven effects from early loan repayments.

Net gain or loss from financial instruments (fvpl) and net gain or loss from hedge accounting in the aggregate amount of € 24 million (2021: € -35 million) was mainly incurred by positive valuation effects resulting from market developments for currency and interest rate hedging derivatives, due to the strong market dynamics and coming from negative initial values at the beginning of 2022. To reduce volatility in the income statement brought about by these items, the Bank had concluded additional hedges in the first half of 2022.

Administrative expenses rose to € 260 million (2021: € 256 million), exclusively attributable to transaction costs incurred by the successful completion of the voluntary public offer made by Atlantic BidCo.

Net other operating income/expenses of € -6 million (2021: € -13 million) resulted largely from the devaluation of property held by the Bank. It was burdened in the previous year by € 11 million in interest on tax back payments.

Overall, operating profit for the Structured Property Financing segment was € 200 million (2021: € 154 million). Taking into consideration income taxes of € 70 million (2021: € 82 million), the segment result amounted to € 130 million (2021: € 72 million). Income taxes were burdened in the previous year by the consideration of new findings on the tax treatment of a legacy fund investment which was sold in 2012.

Banking & Digital Solutions segment

Segment result

€ mn	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
Net interest income	92	43
Loss allowance	0	0
Net commission income	31	28
Administrative expenses	79	73
Net other operating income/expenses	-1	-1
Operating profit	**42**	**-4**
Income taxes	14	-1
Segment result	**28**	**-3**

Net interest income in the Banking & Digital Solutions segment of € 92 million was significantly higher than in the previous year (€ 43 million), because of first positive effects from higher market interest rates on the deposit-taking business.

Net commission income of € 31 million increased as planned (2021: € 28 million).

Administrative expenses increased to € 79 million (2021: € 73 million) – due to, among other things, the acquisition of CollectAI, which will lead to a business expansion in the future.

Overall, segment operating profit was € 42 million (2021: € -4 million). Taking income taxes into consideration, the segment result for the first half of the year amounted to € 28 million (2021: € -3 million).

Aareon segment

Segment result

€ mn	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
Net interest income	-17	-6
Loss allowance	0	0
Net commission income	252	221
Net gain or loss from financial instruments (fvpl)	0	–
Net gain or loss from investments accounted for using the equity method	-1	-1
Administrative expenses	244	211
Net other operating income/expenses	7	2
Operating profit	**-3**	**5**
Income taxes	2	6
Segment result	**-5**	**-1**

Net interest income in the Aareon segment amounted to € -17 million, reflecting partially debt-financed M&A activities (2021: € -6 million).

Net commission income increased to € 252 million (2021: € 221 million), despite Aareon's transformation to a SaaS company. M&A transactions closed in the previous year also contributed to this rise.

Administrative expenses increased to € 244 million (2021: € 211 million), as expected, reflecting the business expansion as well as non-recurring effects.

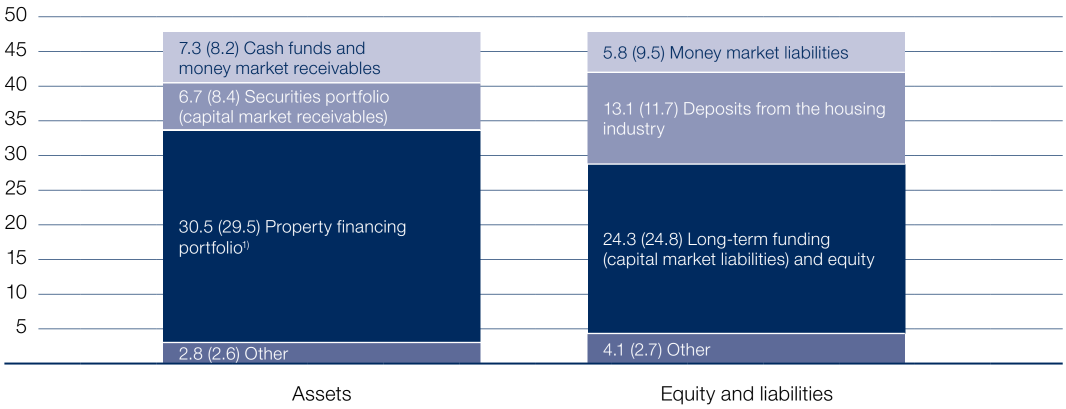
Overall, segment operating profit was € -3 million (2021: € 5 million). Taking income taxes into consideration, the segment result for the first half of the year amounted to € -5 million (2021: € -1 million).

Financial position – assets and liabilities

Despite repayment of € 4.3 billion in funds under Deutsche Bundesbank's Targeted Longer-Term Refinancing Operations (TLTRO) consolidated total assets of Aareal Bank Group declined only slightly, to € 47.3 billion as at 31 December 2022 (31 December 2021: € 48.7 billion). The increased property financing portfolio was funded also by the high volume of deposits from the housing industry.

Statement of financial position – structure as at 31 December 2022 (31 December 2021)

€ bn



[1)] Excluding € 0.2 billion in private client business (31 December 2021: € 0.3 billion) and € 0.2 billion in local authority lending business by the former Westdeutsche ImmobilienBank AG (WestImmo) (31 December 2021: € 0.3 billion), and excluding loss allowance

Cash reserve and money market receivables

The cash reserve and money market receivables position contains excess liquidity invested at short maturities. As at 31 December 2022, it comprised predominantly cash funds and deposits with central banks and money-market receivables from banks, and was only reduced slightly despite € 4.3 billion in TLTRO repayments.

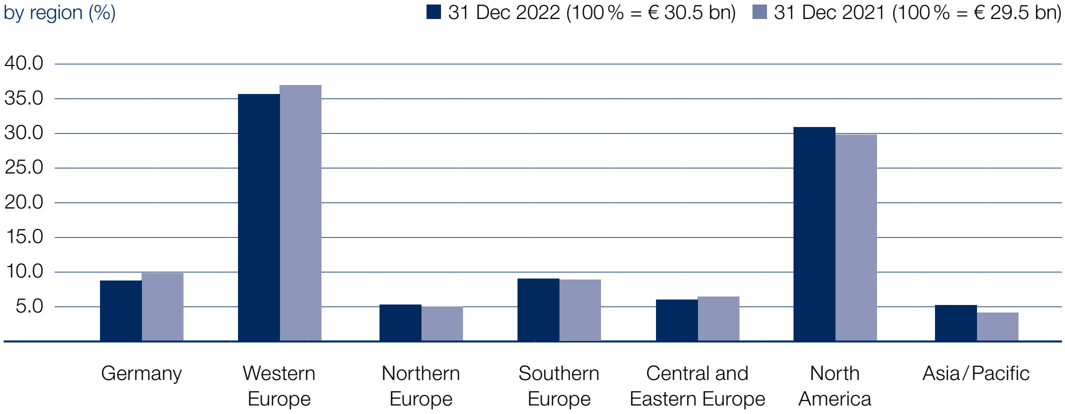
Property financing portfolio

As at 31 December 2022, the volume of Aareal Bank Group's property financing portfolio[1] stood at € 30.5 billion (2021: € 29.5 billion). Including the former WestImmo's private client business and local authority lending, it amounted to € 30.9 billion (2021: € 30.0 billion). Accordingly, Aareal Bank has virtually reached its original target portfolio size of around € 31 billion.

At the reporting date (31 December 2022), Aareal Bank Group's property financing portfolio was composed as shown in the charts, compared with year-end 2021.

Property financing volume[1] (amounts drawn)

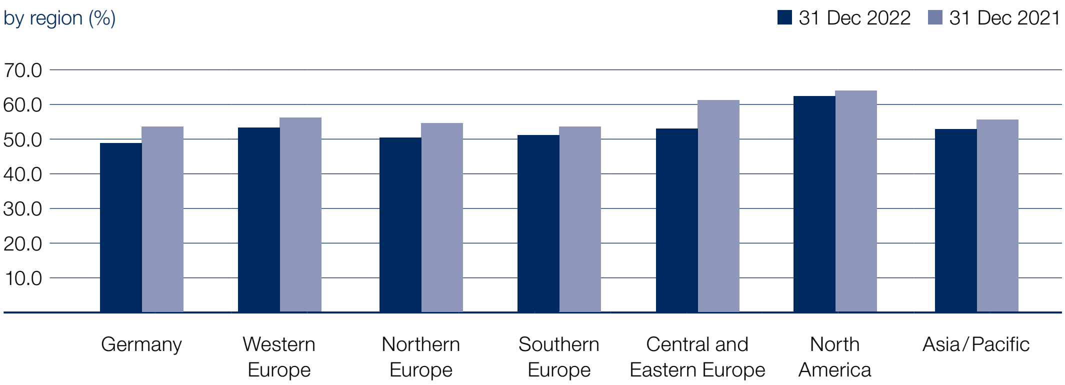
by region (%)



[1] Excluding private client business and former WestImmo's local authority lending business

Average LTV of property financing[1]

by region (%)

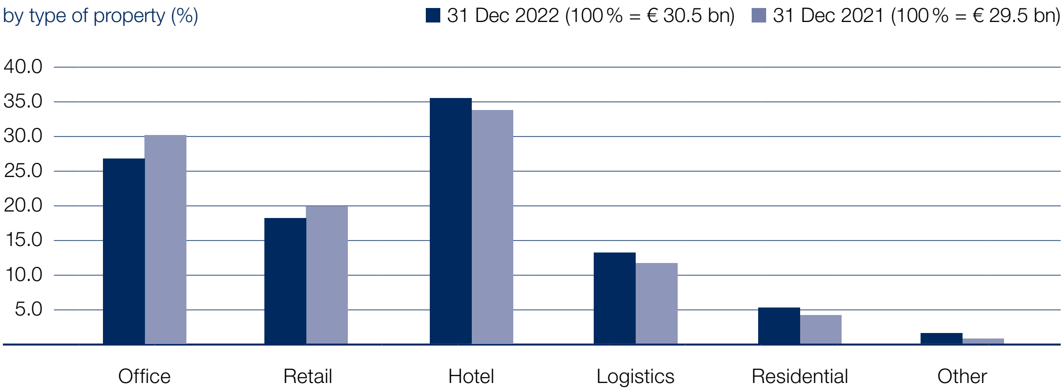


[1] Excluding private client business and former WestImmo's local authority lending business

Note that the loan-to-value ratios are calculated on the basis of drawdowns and market values, including supplementary collateral with sustainable value, excluding defaulted property financings.

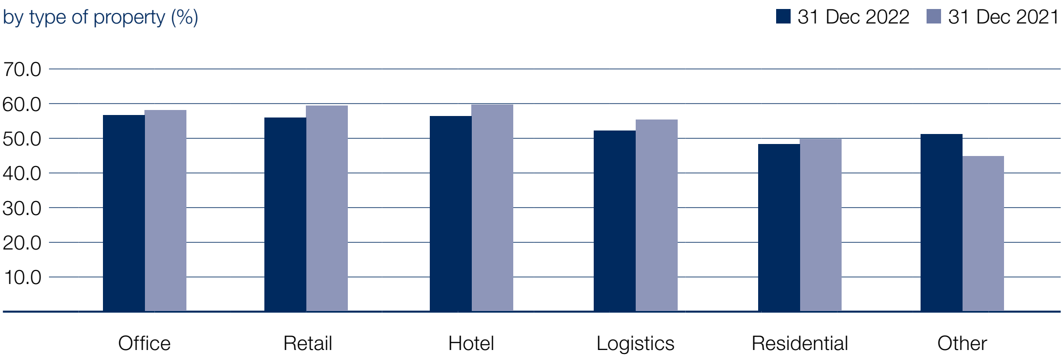
[1] Excluding private client business and former WestImmo's local authority lending business

Property financing volume[1] (amounts drawn)
by type of property (%)



[1] Excluding private client business and former WestImmo's local authority lending business

Average LTV of property financing[1]
by type of property (%)



[1] Excluding private client business and former WestImmo's local authority lending business

Note that the loan-to-value ratios are calculated on the basis of drawdowns and market values, including supplementary collateral with sustainable value, excluding defaulted property financings.

Portfolio allocation by region and continent did not change significantly during the period under review. Whilst the portfolio share of exposures in Asia and North America rose by about 1.2 percentage points, it was down by around 1.1 percentage points for Germany, and by around 1.2 percentage points for Western Europe, while remaining relatively stable for all other regions.

The share of hotel property increased by 1.7 percentage points and the share of logistics property by 1.5 percentage points compared to year-end. The share of office property declined by 3.4 percentage points, while the retail property share was 1.7 percentage points lower. The share of residential property, as well as other financings in the overall portfolio remained almost unchanged compared to year-end 2021.

All in all, the high degree of diversification by region and property type within the property financing portfolio was maintained during the period under review.

Treasury portfolio

In terms of its ratings structure, Aareal Bank's Treasury portfolio has a very high credit quality and liquidity. As part of the overall management of the Bank, it fulfils two major tasks: On the one hand, the bulk of the securities are held for the liquidity portfolio, which accounts for a major part of the liquidity reserve from both the economic and normative perspective of risk-bearing capacity.

In addition to the liquidity portfolio, part of the Treasury portfolio is also used as a collateral portfolio. We define this mainly as the securities and promissory note loans that are used as collateral for the two Pfandbrief programmes.

Key aspects taken into account for portfolio management are good credit quality and the related value stability, as well as a high degree of liquidity, depending on the intended use.

As at 31 December 2022, the total nominal volume of the Treasury portfolio[1] was € 6.7 billion (31 December 2021: € 7.4 billion), reduced by maturities and the sale of securities issued by public-sector entities.

The portfolio comprises the asset classes public-sector borrowers, covered bonds and bank bonds (financials), with the public-sector asset class accounting for the largest share of the portfolio (currently at around 83 %). The share of covered bonds was 16 %, while bank bonds account for a small share of 2 %.

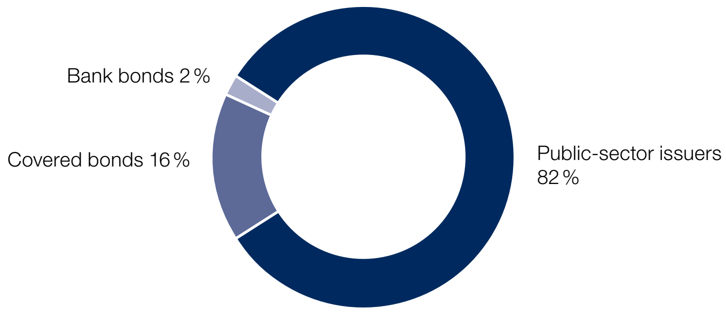
The high credit quality requirements are also reflected in the rating breakdown in the portfolio. 99.8 % of the portfolio has an investment grade rating[2], and 84.2 % of the positions have an AAA to AA- rating (2021: 83.3 %).

The portfolio currently comprises almost exclusively (92 %) securities denominated in euros, and its average remaining term on the reporting date was 5.9 years.

Given the high requirements as regards liquidity of the positions as part of their use for the liquidity portfolio, 88 % of the portfolio can be pledged as collateral with the ECB and 81 % fulfils the requirements for "High Quality Liquid Assets" (as defined in the Liquidity Coverage Ratio (LCR)).

Treasury portfolio as at 31 December 2022

% Total volume (nominal): € 6.7 bn



Financial position – liquidity

Money-market liabilities and deposits from the housing industry

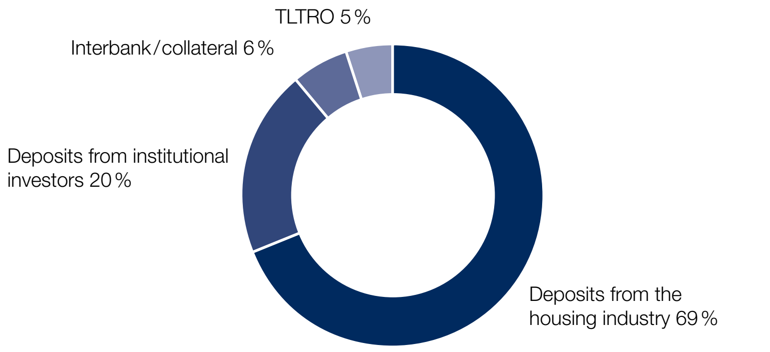
Generally, in addition to deposits from housing industry clients, Aareal Bank also uses deposits from institutional investors including retail deposits for short-term refinancing. To raise funds from retail deposits, it launched several cooperations in the year under review by way of a trust model, for example, with Raisin and Deutsche Bank. It also uses interbank and repo transactions to manage liquidity and cash positions.

[1] As at 31 December 2022, the securities portfolio was carried at € 6.7 billion (31 December 2021: € 8.4 billion).
[2] The rating details are based on the composite ratings.

As at 31 December 2022, Aareal Bank had € 13.1 billion at its disposal in deposits generated from the business with the housing industry (31 December 2021: € 11.7 billion). Money market liabilities, including targeted longer-term refinancing operations (TLTROs) of Deutsche Bundesbank, amounted to € 5.8 billion (31 December 2021: € 9.5 billion), after repayment of € 4.3 billion of the € 5.3 billion TLTRO funds in November 2022.

Money market funding mix as at 31 December 2022

% Total volume: € 18.9 bn



Long-term funding and equity

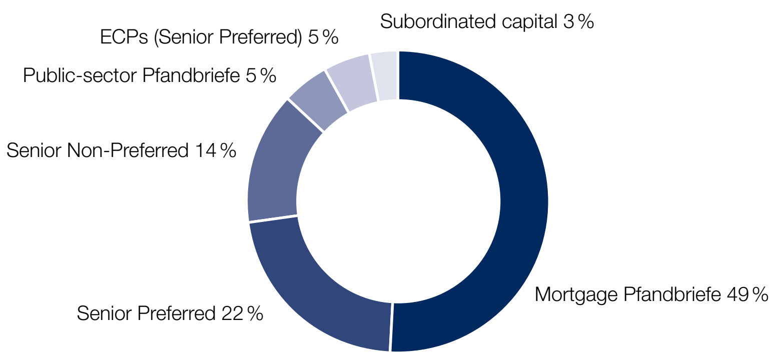
Funding structure

Aareal Bank Group continues to be solidly funded, a development visible by its major share of long-term funding. This encompasses registered and bearer Pfandbriefe, promissory note loans, medium-term notes, other bonds and subordinated issues. According to its legal characteristics, we recognise European Commercial Paper (ECP) as debt even though their maturity is usually less than one year. Subordinated capital includes subordinated liabilities and the Additional Tier 1 (AT1) bond.

As at 31 December 2022, the notional volume of the long-term refinancing portfolio was € 23.0 billion. Book values of the long-term refinancing portfolio totalled € 20.3 billion.

Capital market funding mix as at 31 December 2022

% Total volume (nominal): € 23.0 bn



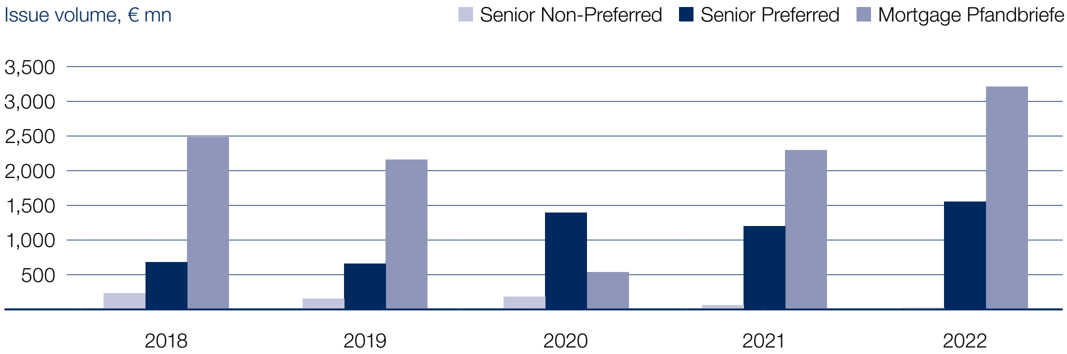
Refinancing activities

During the 2022 financial year, Aareal Bank Group was able to place € 4.7 billion on the capital markets. This included six benchmark transactions: two € 750 million Pfandbrief issues, one € 625 million Pfandbrief issue and one Pfandbrief issue in the amount of € 500 million. Aareal Bank Group raised a total of € 1.5 billion in senior unsecured funding, including two 'green' senior preferred issues[1)] of € 500 million each.

Since we conduct our business activities in a range of foreign currencies, we have secured our foreign currency liquidity over the longer term by means of appropriate measures.

Issuing activities – 2018 to 2022

Issue volume, € mn



Equity

Aareal Bank Group's total equity as disclosed in the statement of financial position amounted to € 3,258 million as at 31 December 2022 (31 December 2021: € 3,061 million), comprising € 300 million for the Additional Tier 1 (AT 1) bond. It increased due to the retention of the originally planned dividend and consolidated net income for 2022. In addition, the negative amount of the reserve from remeasurements of defined benefit plans markedly declined due to the strong increase in interest rates. Please also refer to the statement of changes in equity, and to our explanations in Note 60 of the consolidated financial statements.

At 19.3 %, the Common Equity Tier 1 ratio (CET1 ratio) – Basel IV (phase-in) – was markedly above the target value of 16 % in the year under review, as expected.

1) The requirements for 'green' issues are set out in the Aareal Green Finance Framework.

Regulatory indicators[1)]

€ mn	31 Dec 2022	31 Dec 2021
Basel IV (phase-in)		
Common Equity Tier 1 (CET1) capital	2,468	2,327
Tier 1 (T1) capital	2,768	2,627
Total capital (TC)	3,065	3,021
%		
Common Equity Tier 1 ratio (CET1 ratio)	19.3	18.2
Tier 1 ratio (T1 ratio)	21.7	20.5
Total capital ratio (TC ratio)	24.0	23.6
Basel III		
Common Equity Tier 1 ratio (CET1 ratio)	19.3	22.2

[1)] Aareal Bank AG utilises the rules set out in section 2a of the KWG in conjunction with Article 7 of the CRR, pursuant to which regulatory indicators of own funds may only be determined at Group level. In this respect, the following disclosures relate to Aareal Bank Group.
31 December 2021: excluding originally proposed dividend of € 1.60 per share in 2022 for the financial year 2021, including the dividend of €1.10 per share not distributed in 2021 as well as the pro rata temporis accrual of net interest on the AT1 bond.
31 December 2022: including originally proposed dividend of € 1.60 per share in 2022 and pro rata temporis accrual of the net interest on the AT1 bond, excluding profits for 2022 under commercial law. There are no plans to distribute any dividends, in line with the strategy for 2023. The appropriation of profits is subject to approval by the Annual General Meeting.
The SREP recommendations concerning the NPL inventory and the ECB's NPL guidelines for the regulatory capital of NPLs and an additional voluntary and preventive capital deduction for regulatory uncertainties from ECB tests were taken into account.
Adjusted total risk exposure amount (as defined in Article 92 (3) CRR – RWAs), in accordance with applicable law as at 31 December 2022 (CRR II) and applying the partial regulation for the "output floor" in connection with commercial property lending and equity exposures, based on the European Commission's proposal dated 27 October 2021 for implementation of Basel IV. The adjusted risk-weighted exposure amount for commercial property lending and equity exposures is determined using the higher of (i) total RWAs calculated in accordance with CRR II currently in force, and (ii) the figure calculated in accordance with the revised CRSA (pursuant to CRR III), applying the transitional provisions for 2025 (50% output floor). This forms the basis for the development of Basel III ratios during the 2022 financial year, as shown; said "higher-of" comparison was not carried out in this respect as at 31 December 2021.

Regulatory capital[2)]

€ mn	31 Dec 2022	31 Dec 2021
Tier 1 (T1) capital		
Subscribed capital and capital reserves	900	900
Eligible retained earnings	1,985	1,804
Accumulated other comprehensive income	-71	-127
Amounts to be deducted from CET1 capital	-346	-250
Total Common Equity Tier 1 (CET1) capital	**2,468**	**2,327**
AT1 bond	300	300
Sum total of Additional Tier 1 (AT1) capital	**300**	**300**
Sum total of Tier 1 capital (T1)	**2,768**	**2,627**
Tier 2 (T2) capital		
Subordinated liabilities	248	346
Other	49	48
Sum total of Tier 2 capital (T2)	**297**	**394**
Total capital (TC)	**3,065**	**3,021**

[2)] 31 December 2021: excluding originally proposed dividend of € 1.60 per share in 2022 for the financial year 2021, including the dividend of € 1.10 per share not distributed in 2021 as well as the pro rata temporis accrual of net interest on the AT1 bond.
31 December 2022: including originally proposed dividend of € 1.60 per share in 2022 and pro rata temporis accrual of net interest on the AT1 bond, excluding profits for 2022 under commercial law. There are no plans to distribute any dividends in 2023, in line with the strategy. The appropriation of profits is subject to approval by the Annual General Meeting.
The SREP recommendations concerning the NPL inventory and the ECB's NPL guidelines for the regulatory capital of NPLs and an additional voluntary and preventive capital deduction for regulatory uncertainties from ECB tests were taken into account.

Analysis of risk-weighted assets (RWA)[1)]

€ mn	Risk-weighted assets (RWA) 31 Dec 2022	Minimum capital requirements Total 31 Dec 2022	Risk-weighted assets (RWA) 31 Dec 2021	Minimum capital requirements Total 31 Dec 2021
Credit risk (excluding counterparty credit risk)	10,063	805	11,305	904
Counterparty credit risk	384	31	381	31
Market risk[2)]	136	11	n/a	n/a
Operational risk	1,142	91	1,131	91
Additional RWA pursuant to Article 3 of the CRR	1,057	85	n/a	n/a
Total	**12,782**	**1,023**	**12,817**	**1,026**

1) 31 December 2022: Adjusted total risk exposure amount (as defined in Article 92 (3) CRR – RWAs), in accordance with applicable law as at 31 December 2022 (CRR II) and applying the partial regulation for the "output floor" in connection with commercial property lending and equity exposures, based on the European Commission's proposal dated 27 October 2021 for implementation of Basel IV. The adjusted risk-weighted exposure amount for commercial property lending and equity exposures is determined using the higher of (i) total RWAs calculated in accordance with CRR II currently in force, and (ii) the figure calculated in accordance with the revised CRSA (pursuant to CRR III), applying the transitional provisions for 2025 (50 % output floor).

2) 31 December 2021: there was no requirement to determine market risk since, under article 351 of the CRR, the sum total of the net foreign currency position in aggregate did not exceed 2 % of regulatory capital.

Our Employees

In view of the ongoing pandemic, numerous restrictions and safety measures continued to apply during the year under review. After the first lockdown, we introduced a rolling attendance system with varying attendance ratios, depending on infection rates. Implemented along-side a strict hygiene concept, this allowed both working at the office and mobile work during the year under review. Where appropriate and compatible with the local regulations, this system was implemented at our international locations correspondingly. After another year with SARS-CoV-2, we have further strengthened those ways of cooperation in an exceptional situation and mastered the crisis well thanks to the measures and decisions taken.

Employee data as at 31 December 2022[1)]

	31 Dec 2022	31 Dec 2021	Change
Number of employees at Aareal Bank Group	3,316	3,170	6.3 %
Years of service	11.1 years	10.9 years	0.2 years
Staff turnover rate	10.0 %	5.8 %	72.4 %

1) The overview of employee key indicators in the "Responsibility" section of the Company's website (www.aareal-bank.com/en/responsibility/reporting-on-our-progress/) provides more information, including the breakdown by gender, age and region.

Qualification and training programmes

Qualified and motivated employees make a decisive contribution to our Company's economic performance and are thus a key factor in its success – as well as a competitive advantage. For this purpose, Aareal Bank Group operates a human resources approach aimed at the further qualification of its employees. In line with the corporate strategy, the human resources policy is continuously developed in a targeted way. Aareal Bank Group supports employees in change processes, and promotes lifelong professional learning.

With the new training and continuing professional development approach Learning@Aareal, introduced in 2020, Aareal Bank supports employees through targeted offers that are focused on the Company and HR strategy, and Aareal Bank's Unique Selling Point (USP).

Learning@Aareal is integrated in Aareal Bank's strategic development approach, which uses a skills matrix as the basis for talent develop-ment at an organisational level. By linking the skills matrix, Learning@Aareal, clear selection procedures and management and expert career paths, we are facilitating the sustainable development of our employees, which is supplemented by the mandatory staff development dialogue for all managers and employees. In this dialogue between employees and their managers, individual development measures are agreed upon for a medium- to long-term horizon covering the years ahead so that employees will develop competencies and invest their talent in a forward-looking way.

The staff development dialogue builds on the employee's current tasks and, in the Company's and the employee's interests, promotes and enhances both soft skills and hard (professional, methodological and digital) skills. In this context, networking knowledge contributes to the permanent development of the organisation and guarantees that specialist knowledge is secured through sustainable succession planning.

This integrated qualification and professional development approach also helps to improve the balance between work and family life, which is one of Aareal Bank's core concerns. As a matter of consequence, 50 % of the training content is available in digital format, therefore facilitating permanent learning regardless of time or location.

In addition, a digital language learning portal helps to further build language and communications skills, within the scope of internation-alisation. This learning portal was expanded in 2021 and allows all employees throughout the Group to improve their language skills, anywhere (even at home) and at any time.

Another personnel development measure was to conduct the cross-mentoring programme again. Since demand was again strong, two parallel groups embarked upon the programme in 2022, which is designed to promote knowledge transfer between companies by facilitating the targeted exchange of staff.

Promoting the next generation

Attracting and growing talented young employees is a core element of Human Resources work at Aareal Bank Group. The specialist knowledge required in our business segments means that we have to invest continuously and in a targeted manner in training the next generation. For this reason, talent recruitment and training are integral parts of our sustainable succession planning and our structured knowledge management. In the year under review, we continued to expedite talent recruitment and training and were able to fill almost half of the vacancies with young professionals.

Aareal Bank's talent development programme comprises not only trainee programmes, but also two twin-track degree courses – business information systems and business administration – in cooperation with DHBW Mannheim and RheinMain University, plus an on-the-job Bachelor's degree in business administration offered in cooperation with the University of Applied Sciences in Mainz. In addition, Aareal Bank focuses on twin-track vocational training and offers apprenticeships as IT specialists, in cooperation with other companies in the region. It collaborates closely with universities in the region using a variety of initiatives that are constantly being expanded. In addition to the successful transfer of specialist knowledge and the gathering of new perspectives, the specific measures taken at Aareal Bank to empower young professionals have already reduced the average age.

Remuneration system

In addition to a fixed remuneration component, all permanent employees receive performance-based variable remuneration. The objective is to offer a remuneration level that is both appropriate and attractive to all Group employees.

Work-life balance

Aareal Bank Group places great importance on compatibility between career and family. This is emphasised by a broad range of dedicated support services such as partnerships with childcare institutions or service providers for the provision of private childcare, holiday programmes for employees' children, the availability of a parent-child workroom, flexible working policies, part-time positions and the option of mobile working for all employees. Another component of improving the work-life balance of the employees consists of services that make it easier to combine working life with the care of close relatives. This includes, among other things, the offer of counselling and support in the event of illness as well as nursing care for close relatives (available throughout Germany), as well as the option of participating in various training courses in the Bank for better compatibility between family, care and work.

Health

In order to verify the effectiveness and continuous improvement of occupational safety management, occupational safety committees meet quarterly. These include the respective company doctor and occupational safety specialists, in addition to various company officers.

In order to protect and promote the health of its employees in a targeted manner, Aareal Bank Group offers a comprehensive range of health-promoting measures in the areas of information, prophylaxis, exercise and ergonomics, nutrition, mental health and relaxation that are always based on employees' current needs. Despite the restrictions imposed by the pandemic in the reporting year, successful formats continued to be applied in the Bank. These included preventative, individual health consultations on various topics, consultations with the company doctor including screenings, flu vaccinations, skin screenings, colorectal cancer screening and ergonomics advice, and business yoga that was continued digitally.

Risk Report

Aareal Bank Group Risk Management

The ability to correctly assess risks, and to manage them in a targeted manner, is a core skill in banking. Accordingly, being able to control risks in all their relevant variations is a key factor for a bank's sustainable, commercial success. This economic motivation for a highly-developed risk management system is continuously increased by extensive regulatory requirements for risk management.

Aareal Bank regularly reviews the appropriateness and effectiveness of its corporate governance systems (including risk governance systems). The Risk Appetite Framework was updated during the second quarter of 2022, with pension risks defined as a separate type of risk, in order to enhance transparency.

The Bank's risk management also incorporates sustainability risks, i. e. ESG risks from the environmental, social and governance areas. Aareal Bank considers sustainability risks to include overarching risks or risk drivers that are influenced directly or indirectly by environmental or social issues, or by monitoring processes. All material sustainability risks were able to be classified as a form of existing financial and non-financial risks. In line with this, they are managed implicitly as part of the risk types under which they are classified. ESG risks are a component of the regular risk inventory process. Physical climate risk and transition risk in terms of investor behaviour that have an impact on credit, liquidity, property and reputational risk were identified as the major short-term risk factors. This is complemented by the material mid- to long-term risk factors of climate transition risk related to technology, the risk of regulatory breaches as well as governance factors such as fraud, sustainability management and data protection. In addition, there is client behaviour as an overarching factor. The system for monitoring and managing ESG risks is being continuously refined: suitable risk indicators and limits for climate and environmental risks are being developed for this purpose.

Risk management – scope of application and areas of responsibility

Aareal Bank AG, as the parent entity of the Group, has implemented extensive systems and procedures to monitor and manage the Group's risk exposure.

Uniform methods and procedures are deployed to monitor material risks generally associated with banking business across all entities of Aareal Bank Group. Specific risk monitoring methods have been developed and deployed to suit the relevant risk exposure at the subsidiaries. In addition, risk monitoring for these subsidiaries is carried out at Group level via the relevant control bodies of the respective entity, and equity investment risk controlling.

Overall responsibility for risk management and risk monitoring remains with the Management Board and – in its function of monitoring the Management Board – the Supervisory Board of Aareal Bank AG. The diagram below provides an overview of the responsibilities assigned to the respective organisational units.

Type of risk	Risk management	Risk monitoring
Overall responsibility: Management Board and Supervisory Board of Aareal Bank AG		
Loan loss risks		
Property Financing	Loan Markets & Syndication Credit Risk Credit Portfolio Management Credit Transaction Management Workout	Risk Controlling Second Line of Defence (NPL)
Treasury business	Treasury	Risk Controlling
Country risks	Treasury Credit Risk Credit Transaction Management	Risk Controlling
Interest rate risk in the banking book (IRRBB)	Treasury, Asset-Liability Committee	Risk Controlling Finance & Controlling
Market risks	Treasury, Asset-Liability Committee	Risk Controlling
Operational risks	Process owners	Non-Financial Risks
Investment risks	Group Strategy	Risk Controlling Finance & Controlling Controlling bodies
Property risks	Aareal Estate AG	Risk Controlling
Business and strategic risks	Group Strategy	Risk Controlling
Liquidity risks	Treasury	Risk Controlling
Process-independent monitoring: Internal Audit		

The Management Board formulates the business and risk strategies, as well as the so-called Risk Appetite Framework. For this purpose, 'risk appetite' means the maximum risk exposure where the Bank's continued existence is not threatened, even in the event of risks materialising. For individual business units (the "First Line of Defence"), the Risk Appetite Framework defines guidelines for the independent and responsible handling of risks.

The risk monitoring function (the "Second Line of Defence") regularly measures utilisation of risk limits, and reports on the risk situation. In this context, the Management Board is supported by the Risk Executive Committee (RiskExCo). The RiskExCo develops proposals for resolutions in line with delegated tasks, and promotes risk communications and a risk culture within the Bank. The risk management system was supplemented by a recovery plan, in line with regulatory requirements, which comprises the definition of threshold values for key indicators – both from an economic and a normative perspective. These are designed to ensure that any negative market developments having an impact upon our business model are identified at an early stage and corresponding action is taken in order to safeguard the sustained continuation of business operations. Risk Controlling is responsible for monitoring financial risks at portfolio level, whilst the Non-Financial Risks division exercises this function for non-financial risks. Both divisions report directly to the Group Chief Risk Officer (GCRO).

On top of this, Group Internal Audit (as the "Third Line of Defence") reviews the organisational structure and procedures, as well as risk processes – including the Risk Appetite Framework – and assesses their appropriateness. Moreover, internal processes provide for the involvement of the Compliance function whenever there are facts which are compliance-relevant.

In order to efficiently perform its control function, amongst other measures, the Supervisory Board has established a Risk Committee, whose responsibility includes the risk strategies as well as the management and monitoring of all material types of risk.

Strategies

The business policy set by the Management Board, and duly acknowledged by the Supervisory Board, provides the conceptual framework for Aareal Bank Group's risk management. The Risk Appetite Framework, which also outlines the key elements of the risk culture put in place, is defined consistently with the business strategy and building on the defined risk appetite. Taking the Risk Appetite Framework as a basis, and strictly considering the Bank's risk-bearing capacity, we have formulated detailed strategies for managing the material types of risk, in terms of capital as well as liquidity. Taken together, these represent the Group's risk strategy. These strategies are designed to ensure a professional and conscious management of risks. Accordingly, these strategies include general policies, to ensure a uniform understanding of risks across all parts of the Group. They also provide a cross-sectional, binding framework applicable to all divisions. The Bank has implemented adequate risk management and risk control processes to implement these strategies, and to safeguard the Bank's risk-bearing capacity.

The business strategy, the Risk Appetite Framework and the risk strategies are subject to review on an ongoing basis, and are updated if necessary. Besides the regular review (and, if appropriate, adjustment) of the business strategy (and consequently, of the Group risk strategy), the Bank's risk-bearing capacity and its material risk models are independently validated at least once a year. For this purpose, the appropriateness of risk measurement methods, processes, and risk limits is examined in particular. During the financial year under review, the strategies were adopted by the Management Board, duly noted, and approved by the Supervisory Board.

The Bank has defined escalation and decision-making processes to deal with limit breaches. Risk Controlling prepares timely and independent risk reports for the management.

Aareal Bank Group maintains a decentralised Internal Control System (ICS), with the respective control activities being outlined in the Written Set of Procedural Rules. These describe individual processes of divisions, subsidiaries, or other units. Internal controls may run upstream, downstream, or in parallel to workflows; this applies both to automatic control and monitoring functions as well as to the respective manual steps. Accordingly, the ICS comprises the entire universe of control activities; its objective is to ensure that qualitative and quantitative standards are adhered to (compliance with legal or regulatory requirements, with limits etc.).

Divisions and subsidiaries review the appropriateness and effectiveness of controls on an event-driven basis – in any case, at least once a year (Aareal Bank: at least half-yearly). The results are discussed with the corresponding units within the Second and Third Lines of Defence (Risk Controlling, Compliance and Internal Audit). Following a plausibility check carried out by a centralised ICS Coordination Unit, results are reported to the Management Board and the Supervisory Board. In the event of any irregularities or violations, depending on the severity of the event, the Management Board (as well as the Supervisory Board, if appropriate) must be notified without delay, so that adequate measures or audit activities can be initiated at an early stage.

Risk-bearing capacity and risk limits

The Bank's ability to carry and sustain risk (as determined within the framework of the Internal Capital Adequacy Assessment Process (ICAAP)) is a core determining factor governing the structure of its risk management system. To ensure its uninterrupted risk-bearing capacity, Aareal Bank Group has adopted a dual management approach comprising two complementary perspectives: the normative and the economic perspective.

The normative perspective aims to ensure Aareal Bank Group's ability to fulfil all of its regulatory requirements over a multi-year period. This perspective thus accounts for all material risks which may impact upon relevant regulatory indicators over the multi-year planning period.

The normative ICAAP perspective is embedded into Aareal Bank Group's planning process, which – in particular – also includes capital planning. Group planning covers three planning years, it comprises both baseline and adverse scenarios. Results of Group planning are shown as a projected consolidated income statement for Aareal Bank Group. Planning also encompasses the balance sheet structure, as well as key regulatory indicators, plus additional internal management indicators.

Besides the planning process itself, intra-year computation adjustments to Aareal Bank Group's planning process also included the ongoing monitoring of management indicators as well as checking whether limits in the normative perspective were being complied with. Management indicators in the normative perspective (which are being monitored, and for which limits have been set) comprise various regulatory ratios.

We are using the ICAAP economic perspective, whose purpose is to safeguard Aareal Bank Group's economic substance and thus, in particular, to protect creditors against economic losses. The procedures and methods are part of the Supervisory Review and Evaluation Process (SREP) and are applied in order to identify and quantify potential economic losses, and to determine the required capital backing.

The purpose of internal capital is to serve as a risk-bearing component under the economic perspective. Within Aareal Bank Group, the current regulatory Common Equity Tier 1 (CET1) capital forms the basis for determining economic aggregate risk cover. The Bank ceased adding Additional Tier 1 (AT1) capital to internal capital in April 2022. Tier 2 capital, as well as projected results to be incurred during the risk analysis horizon, are not taken into account.

Moreover, the value-oriented approach adopted under the economic perspective requires suitable adjustments to be made to regulatory Tier 1 capital, in order to bring aggregate risk cover into line with the economic assessment. Specifically, this may entail adjustments regarding conservative valuation, hidden encumbrances, or a management buffer. Starting in 2022, the management buffer has also included adjustments for potential climate risks as determined within the scope of our Group-wide ESG strategy.

Aareal Bank Group consistently applies a period of 250 trading days as a risk analysis horizon, as well as for the holding period as part of risk models under the economic perspective. To the extent that risks are measured on the basis of quantitative risk models, a uniform observation period of at least 250 trading days (or at least one year) is applied to the risk parameters used. The appropriateness of model assumptions is verified within the scope of independent validation of the corresponding risk models and parameters.

Looking at correlation effects between material types of risk within the framework of the economic ICAAP perspective, Aareal Bank Group has prudently opted for aggregation of risk levels; accordingly, no risk-mitigating correlation effects are being taken into account. Where we measure risks on the basis of quantitative risk models for the purposes of calculating risk-bearing capacity, these are based on a confidence interval of 99.9 %.

Limits for specific risk types are determined in such a manner that aggregate limits do not exceed economic aggregate risk cover, less a risk buffer designed to cover risks not explicitly covered by limits, and to also absorb other fluctuations of internal capital over time. Individual limits are set on the basis of existing risk exposures and historical levels of potential risks, and to an extent that is in line with the Bank's business and risk strategy. Specific limits have been set in a way that each limit is sufficient for utilisation in line with planned business development, as well as for common market fluctuations.

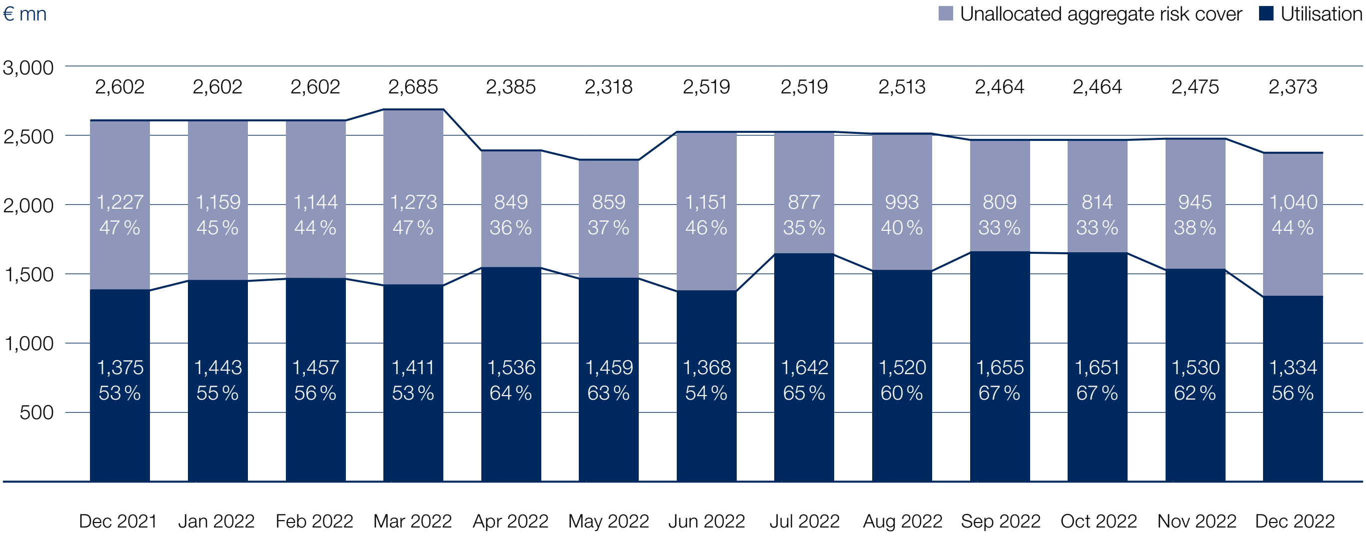
A detailed monthly report provides information regarding the utilisation of individual limits for the material types of risk, as well as on the overall limit utilisation. These are being monitored as part of daily reporting. No limit breaches at the aggregate risk level were detected during the period under review. The observed increase in market volatility in connection with the war in Ukraine led to 'amber' thresholds (early warning triggers) for individual risk categories being exceeded. These could be resolved through risk-mitigating measures without undue delay.

Risk-bearing capacity of Aareal Bank Group (ICAAP – economic perspective)

€ mn	31 Dec 2022	31 Dec 2021
Common Equity Tier 1 capital in accordance with Basel III[1]	2,468	2,622
Economic adjustments	-95	-20
Aggregate risk cover	**2,373**	**2,602**
Utilisation of aggregate risk cover		
Loan loss risks	467	574
Interest rate risk in the banking book (IRRBB)	86	136
Pension risks[2]	72	n/a
Market risks	406	373
Operational risks	91	93
Investment risks	75	62
Property risks	71	79
Business and strategic risks	66	58
Total utilisation	**1,334**	**1,375**
Utilisation (% of aggregate risk cover)	**56 %**	**53 %**

[1] T1 was still used in 2021
[2] In 2021, pension risks were included as part of interest rate risk in the banking book.

Utilisation of aggregate risk cover during the course of 2022



Since risk cover potential is an inadequate measure to assess the risk-bearing capacity in terms of monitoring the Bank's ability to meet its payment obligations (liquidity risk in the narrower sense), we have defined special tools within the framework of the Internal Liquidity Adequacy Assessment Process (ILAAP) for managing and monitoring this type of risk. These tools are described in detail in the section "Liquidity risks".

Stress testing

Within the scope of ICAAP and ILAAP, scenario analyses are carried out in all perspectives, as a core element of our risk management system. This involves conducting stress tests for all material risks, using both historical parameters as well as hypothetical stress testing scenarios. To also be able to assess cross-relationships between the various types of risk, we have defined multi-factor stress scenarios, so-called 'global' stress tests. For instance, the impact of the crisis affecting financial markets and the economy, which broke out in 2007, on individual types of risk and aggregate risk is analysed within the scope of a historical scenario. In the hypothetical scenario, current potential developments are derived from factors such as political developments, and are combined with significant macro-economic deterioration. The stress testing methodology implemented also takes into account the impact of any risk concentrations. Stress scenarios are analysed both from an economic and a normative perspective, with the respective cross-relationships being taken into consideration – meaning that any economic risks which may materialise (from a normative view) over the analysis period being incorporated in the normative perspective, unless they are sufficiently covered already. ESG risks were integrated into the stress testing methodology in 2022. ESG-related stress test calculations comprise a scenario depicting climate change, which is being supplemented by a scenario on change in society.

The Management Board and the Supervisory Board are informed of the results issued by the stress analyses on a quarterly basis.

Lending business

Division of functions and voting

Aareal Bank Group's structural organisation and business processes consider regulatory requirements regarding the organisational structure and procedures in the credit business.

Processes in the credit business are designed to consistently respect the clear functional division of Sales units ("Markt") and Credit Management ("Marktfolge"), up to and including senior management level. In addition, the Risk Controlling division, which is not involved in making lending decisions, is responsible for monitoring all material risks whilst ensuring an adequate and targeted risk reporting system at portfolio level.

Lending decisions regarding credit business classified as relevant for the Bank's risk exposure require two approving votes submitted by a Sales unit and a Credit Management unit. The Bank's Schedule of Powers clearly defines the relevant lending authorities within Sales units and Credit Management. Where authorised persons are unable to come to a unanimous lending decision, the loan involved cannot be approved, or must be presented to the next-highest decision-making level for a decision.

The RiskExCo, which has delegated authority to the Heads of Risk Controlling, Credit Transaction Management and Credit Portfolio Management (organisational units which are independent of Sales units), is responsible for the approval of counterparty, issuer, or country limits.

We have implemented and documented the clear separation of Sales and Credit Management processes across all relevant divisions.

Process requirements

The credit process comprises the credit approval and further processing phases, each governed by a control process. Credit exposures subject to increased risks involve supplementary processes for intensified handling, the handling of problem loans, and – if necessary – for recognising allowance for credit losses. The corresponding processing principles are laid down in the Bank's standardised rules and regulations. Important factors determining the counterparty credit risk of a credit exposure are identified and assessed on a regular basis, taking into account sector and (where appropriate) country risks. Critical issues regarding an exposure are highlighted, and analysed assuming different scenarios where appropriate.

Suitable risk classification procedures are applied to evaluate risks for lending decisions, as well as for regular or event-driven monitoring of exposures. This classification scheme is reviewed at least once a year; depending on the risk situations, the review cycle may be shortened significantly. Furthermore, the risk assessment results influence pricing.

The organisational guidelines contain provisions governing escalation procedures and further handling in the event of limit breaches, or of a deterioration in individual risk parameters. Measures involved may include the provision of extra collateral, or an impairment test.

Early risk detection procedures

The early identification of credit risk exposure, using individual or combined (early warning) criteria is a core element of our risk management approach.

In particular, the procedures applied for the early detection of risks serve the purpose of identifying borrowers or exposures where higher risks start emerging, at an early stage. For this purpose, we generally monitor individual exposures and the parties involved (such as borrowers or guarantors) regularly throughout the credit term, assessing quantitative and qualitative factors, using instruments such as periodic monitoring and internal ratings. The intensity of the ongoing assessments is based on the risk level and size of the exposure. The Group's risk management processes ensure that counterparty credit risk is assessed at least once a year.

Extensive IT resources are deployed to identify risk positions, and to monitor and assess risks. Overall, the existing set of tools and methods enables the Bank to adopt risk management measures, where required, at an early stage.

Actively managing client relationships is crucially important in this context: approaching clients in time to jointly develop a solution to any problems which may arise. Where necessary, we muster the support of experts from the independent restructuring and recovery functions.

Risk classification procedures

Aareal Bank employs risk classification procedures tailored to the requirements of the respective asset class for the initial, regular, or event-driven assessment of counterparty credit risk. Responsibility for development, quality assurance, and monitoring implementation of risk classification procedures, and for annual validation, lies with two separate divisions outside the Sales units which are independent from each other.

The ratings determined using internal risk classification procedures are an integral element of the Bank's approval, monitoring, and management processes.

Property financing business

The Bank employs a two-level risk classification procedure for large-sized commercial property finance exposures, specifically designed to match the requirements of this type of business.

In a first step, the client's probability of default (PD) is determined using a rating procedure. The method used in this context comprises two main components, a property rating and a corporate rating.

The relative impact of the two components on the rating result is determined by the structure of the exposure concerned. The client's current and future default probability is determined based on specific financial indicators, together with qualitative aspects and expert knowledge.

The second step involves calculating the loss given default (LGD). The LGD estimates the extent of the economic loss in the event of a borrower defaulting. In simple terms, this is the amount of the claim not covered by the proceeds from the realisation of collateral.

When evaluating collateral, haircuts are applied or recovery rates used, depending on the type of collateral involved and specific realisation factors. For financings of domestic properties, recovery rates are taken from a pool of data used across the Bank, whilst recovery rates for international properties are derived using statistical methods, given the low number of realisations.

In this context, PD and LGD procedures are also applied for accounting purposes, for determining model-based loss allowance. Concerning the scenario analyses to be taken into account when determining individual LGDs, we applied an updated scenario mix, going beyond the customary process. This probability-weighted scenario mix reflects the uncertainty of future developments and supplements our baseline scenario through the addition of divergent developments over an observation period of three years.

The expected loss (EL) in the event of default of an exposure is determined as the product of PD, LGD and EAD. As a risk parameter related to the financing, EL is used as an input factor for the tools used to manage the property financing business.

Financial institutions

Aareal Bank Group employs an internal rating procedure for financial institutions, which incorporates qualitative and quantitative factors as well as our client's group affiliation, to classify the risk exposure to banks, financial services providers, securities firms, public-sector development banks, and insurance companies. Financial institutions are assigned to a specific rating grade by way of assessing relevant financial indicators and taking into account expert knowledge.

Sovereign states and local authorities

In addition, Aareal Bank Group employs internal rating methods for sovereign borrowers and regional governments, local and other public-sector entities. In this context, rating grades are assigned using clearly defined risk factors, such as fiscal flexibility or the level of debt. The expert knowledge of our rating analysts is also taken into account for the rating.

In general, the risk classification procedures employed by the Bank are dynamic methods which are permanently adapted to changing risk structures and market conditions.

Trading activities

Functional separation

We have implemented a consistent functional separation between Sales units and Credit Management for the conclusion, settlement and monitoring of trading transactions, covering the entire processing chain.

On the Sales side, the processing chain comprises the Treasury division, whilst Credit Management tasks are carried out by the independent Credit Transaction Management and Risk Controlling divisions. Beyond this, Finance & Controlling and Audit are responsible for tasks not directly related to processes.

We have laid down organisational guidelines providing for binding definitions of roles and responsibilities along the processing chain; with clearly defined change processes.

The detailed assignment of responsibilities is outlined below.

Treasury is responsible for risk management and trading activities as defined by the Minimum Requirements for Risk Management ("MaRisk"). Treasury is also responsible for asset/liability management, and for managing the Bank's market and liquidity risk exposures. In addition, we have established an Asset-Liability Committee (ALCO), to develop strategies for the Bank's asset/liability management and proposals for their implementation. The ALCO, which comprises the CFO and CRO, and other members appointed by the Management Board, meets every two weeks.

Credit Transaction Management is responsible for controlling trading activities, confirming trades to counterparties, and for trade settlement. The division is also responsible for verifying that trades entered into are in line with prevailing market conditions. Legal performs the legal assessment of non-standard agreements, and of new standard/master agreements.

To assess counterparty credit risk in the trading business, a rating is prepared for all counterparties and issuers on a regular or event-driven basis. The rating is a key indicator used to determine the limit for the relevant counterparty or issuer.

The tasks of the Risk Controlling division comprise identifying, quantifying and monitoring market price, liquidity and counterparty credit risk exposure from trading activities, and the timely and independent risk reporting to senior management.

Process requirements

Processes are geared towards ensuring end-to-end risk management, from conclusion of the trade right through to monitoring portfolio risk. The monitoring and reporting function comprises deploying adequate risk measurement systems, deriving limit systems, and ensuring the transparency of Aareal Bank Group's overall risk exposure from trading activities, in terms of scope and structure.

Change processes (as defined in section AT 8 of the MaRisk) are consistently measured via Group-wide framework directives. Moreover, processes and systems are designed in a way that allows to incorporate new products into the risk monitoring system swiftly and adequately, in order to ensure the flexibility of the Sales units in their business activities.

A standardised process exists for the intensified handling of counterparties and issuers, and for dealing with problems. This process comprises identifying early warning indicators, applying them for the purposes of risk analysis, as well as determining further action to be taken. In the event of counterparty or issuer default, the RiskExCo will be involved in devising an action plan, in cooperation with the Bank's divisions involved.

Escalation and decision-making processes have been set out to deal with limit breaches.

Loan loss risks

Definition

Aareal Bank defines loan loss risk as the risk of losses being incurred due to (i) a deterioration in a business partner's credit quality (migration risk); (ii) a business partner defaulting on contractual obligations; (iii) collateral being impaired; or (iv) a risk arising upon realisation of collateral. Both credit business and trading activities may be subject to counterparty credit risk. Counterparty credit risk exposure from trading activities may refer to risk exposure vis-à-vis counterparties or issuers. Country risk is also defined as a form of counterparty credit risk.

Credit risk strategy

Based on the Bank's overall business strategy, Aareal Bank's credit risk strategy sets out all material aspects of the Group's credit risk management and policies. The credit risk strategy serves as a strategic guideline for dealing with each respective category of risk within Aareal Bank Group; it also provides a binding, overarching framework applicable to all divisions.

The credit risk strategy will be reviewed, at least once a year, as to its suitability regarding the Bank's risk-bearing capacity and its business environment; amendments will be made as necessary. In this context, we also incorporate ESG criteria to assess the properties' sustainable intrinsic value. The associated process is instigated by senior management, and implemented by Risk Controlling, which submits a proposal, which has been agreed upon with all divisions to senior management. The credit risk strategy adopted is subsequently discussed by the Supervisory Board.

Designed in principle for a medium-term horizon, the credit risk strategy is adapted when necessary to reflect material changes in the Group's credit risk and business policies, or in the Group's business environment.

Risk measurement and monitoring

Regulatory requirements are taken into account for the organisation of operations and workflows in the credit and trading businesses.

Processes in the credit and trading businesses are designed to consistently respect the clear functional division of Sales units ("Markt") and Credit Management ("Marktfolge"), up to and including senior management level. The independent Risk Controlling division is responsible for identifying, quantifying and monitoring all material risks at portfolio level, and for maintaining a targeted risk reporting system.

Aareal Bank employs different risk classification procedures tailored to the requirements of the respective type of business for the initial, regular, or event-driven assessment of counterparty credit risk. Forward-looking as well as macro-economic information is taken into consideration for risk classification procedures, and in the valuation of collateral. The respective procedures and parameters are subject to regular review and adjustment. Responsibility for development, quality assurance, and monitoring implementation of procedures, is outside the Sales units.

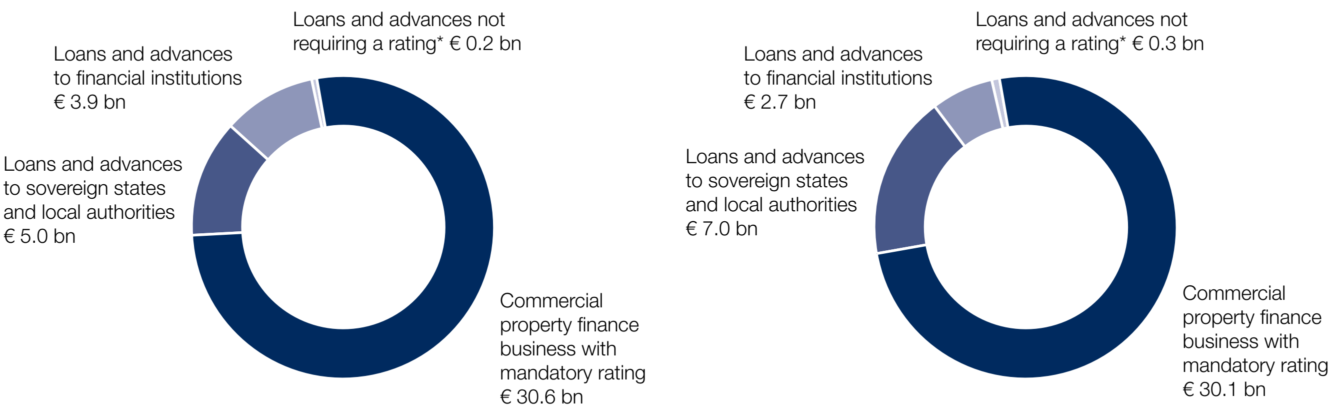
Against the background of the Covid-19 pandemic and the potential impact of the war in Ukraine, special attention is currently paid to macro-economic forecasts. In the context of this ongoing review, we also rely on projections published by the ECB, apart from those issued by our usual data providers. Yet estimation uncertainties are currently much higher than usual, as current events have provoked a situation unprecedented in recent history. Data and experience are therefore both lacking.

We use two different credit risk models to measure, control and monitor concentration and diversification effects on a portfolio level. These are supplemented by limits on individual and sub-portfolio level to facilitate operating management. Based on these instruments, the Bank's decision-makers are regularly informed of the performance and risk content of property financing exposures, and of business with financial institutions. The models in question allow the Bank to include, in particular, rating changes and correlation effects in the assessment of the risk concentrations.

Breakdown of on-balance sheet and off-balance sheet business (gross carrying amounts)

by rating procedure, € bn

31 Dec 2022 | 31 Dec 2021



* Including the private client business of former WestImmo

Within the process-oriented monitoring of individual exposures, the Bank uses various tools to monitor exposures on an ongoing basis: besides the tools already described, this includes rating reviews, the monitoring of payment arrears, and the regular, individual analysis of the largest exposures. The intensity of loan coverage is oriented upon the credit risk exposure.

Some effects of the Covid-19 pandemic were still felt in the year under review, but the portfolio most susceptible to it rebounded as expected, especially in the hotel sector, and returned to pre-pandemic levels on average. In this light, all Covid-specific provisions or processes in the most vulnerable portfolio (retail, hotels, student housing) were abolished as at the reporting date.

The following tables provide a breakdown of gross carrying amounts of on-balance sheet as well as off-balance sheet credit business, money-market business, and capital markets business, by rating classes and loss allowance stages, in line with credit risk management at Group level. The impact of the Covid-19 pandemic markedly decreased in the period under review, but the ongoing interest rate increases on the international markets burdened debt service requirements, resulting in continued high levels of Stage-2 loss allowance compared to historical levels. Figures are based on Aareal Bank Group's internal default risk rating classes. The default definition follows the definition pursuant to Article 178 of the CRR, which is decisive for management purposes.

On-balance sheet commercial property finance business with mandatory rating

€ mn	31 Dec 2022 Stage 1	Stage 2	Stage 3	fvpl[1]	Total	31 Dec 2021 Stage 1	Stage 2	Stage 3	fvpl[1]	Total
Class 1	–	–	–	–	**–**	–	–	–	–	**–**
Class 2	158	–	–	–	**158**	116	–	–	–	**116**
Class 3	258	–	–	–	**258**	203	3	–	–	**206**
Class 4	775	24	–	–	**799**	694	–	–	–	**694**
Class 5	4,367	19	–	18	**4,404**	3,602	105	–	160	**3,867**
Class 6	4,296	52	–	112	**4,460**	4,800	185	–	138	**5,123**
Class 7	4,534	772	–	37	**5,343**	4,337	331	–	67	**4,735**
Class 8	2,610	1,352	–	52	**4,014**	3,034	1,158	–	82	**4,274**
Class 9	3,649	2,623	–	33	**6,305**	1,004	2,545	–	48	**3,597**
Class 10	962	1,519	–	42	**2,523**	908	3,366	–	39	**4,313**
Class 11	157	116	–	–	**273**	38	731	–	–	**769**
Class 12	–	97	–	–	**97**	–	77	–	–	**77**
Classes 13-15	–	–	–	–	**–**	–	74	–	–	**74**
Defaulted	–	–	983	133	**1,116**	–	–	1,503	64	**1,567**
Total	**21,766**	**6,574**	**983**	**427**	**29,750**	**18,736**	**8,575**	**1,503**	**598**	**29,412**

[1] fvpl = at fair value through profit and loss (in accordance with IFRSs)

Off-balance sheet commercial property finance business with mandatory rating

€ mn	31 Dec 2022 Stage 1	Stage 2	Stage 3	fvpl[1]	Total	31 Dec 2021 Stage 1	Stage 2	Stage 3	fvpl[1]	Total
Classes 1-3	–	–	–	–	**–**	–	–	–	–	**–**
Class 4	5	–	–	–	**5**	8	–	–	–	**8**
Class 5	52	–	–	–	**52**	157	–	–	–	**157**
Class 6	72	–	–	0	**72**	70	–	–	–	**70**
Class 7	62	19	–	–	**81**	102	–	–	–	**102**
Class 8	211	33	–	–	**244**	15	9	–	–	**24**
Class 9	84	18	–	–	**102**	113	47	–	–	**160**
Class 10	211	20	–	–	**231**	65	66	–	–	**131**
Class 11	19	–	–	–	**19**	23	8	–	–	**31**
Classes 12-15	–	–	–	–	**–**	–	1	–	–	**1**
Defaulted	–	–	2	–	**2**	–	–	6	–	**6**
Total	**716**	**90**	**2**	**0**	**808**	**553**	**131**	**6**	**–**	**690**

[1] fvpl = at fair value through profit and loss (in accordance with IFRSs); commitments for loan portions earmarked for syndication

On-balance sheet loans and advances to financial institutions

	31 Dec 2022					31 Dec 2021				
€ mn	Stage 1	Stage 2	Stage 3	fvpl[1]	Total	Stage 1	Stage 2	Stage 3	fvpl[1]	Total
Class 1	322	–	–	–	**322**	619	–	–	–	**619**
Class 2	157	–	–	–	**157**	160	–	–	–	**160**
Class 3	476	–	–	–	**476**	373	–	–	–	**373**
Class 4	1,102	–	–	–	**1,102**	212	–	–	–	**212**
Class 5	302	–	–	–	**302**	21	–	–	–	**21**
Class 6	7	–	–	–	**7**	93	–	–	–	**93**
Class 7	655	–	–	–	**655**	708	–	–	–	**708**
Class 8	422	–	–	–	**422**	424	3	–	–	**427**
Class 9	396	–	–	–	**396**	30	–	–	–	**30**
Class 10	18	–	–	–	**18**	27	–	–	–	**27**
Classes 11-18	–	–	–	–	**–**	–	–	–	–	**–**
Defaulted	–	–	–	–	**–**	–	–	–	–	**–**
Total	**3,857**	**–**	**–**	**–**	**3,857**	**2,667**	**3**	**–**	**–**	**2,670**

[1] fvpl = at fair value through profit and loss (in accordance with IFRSs)

On-balance sheet loans and advances to sovereign states and local authorities

	31 Dec 2022					31 Dec 2021				
€ mn	Stage 1	Stage 2	Stage 3	fvpl[1]	Total	Stage 1	Stage 2	Stage 3	fvpl[1]	Total
Class 1	1,687	–	–	–	**1,687**	3,400	–	–	–	**3,400**
Class 2	1,802	–	–	–	**1,802**	1,777	–	–	26	**1,777**
Class 3	495	–	–	–	**495**	656	–	–	62	**656**
Class 4	30	–	–	–	**30**	69	–	–	–	**69**
Class 5	21	–	–	–	**21**	64	–	–	–	**64**
Class 6	273	–	–	–	**273**	1	–	–	–	**1**
Class 7	120	–	–	–	**120**	187	–	–	–	**187**
Class 8	526	–	–	–	**526**	0	–	–	–	**0**
Class 9	–	–	–	–	**–**	620	186	–	–	**806**
Classes 10-20	–	–	–	–	**–**	–	–	–	–	**–**
Defaulted	–	–	–	–	**–**	–	–	–	–	**–**
Total	**4,954**	**–**	**–**	**–**	**4,954**	**6,774**	**186**	**–**	**88**	**6,960**

[1] fvpl = at fair value through profit and loss (in accordance with IFRSs)

Monthly reporting covers the material aspects of credit risk; it is supplemented by detailed information – which also fully covers specific credit portfolio developments (broken down by country, property and product type, risk classes, and collateral categories, for example), in line with regulatory requirements – at least on a quarterly basis. Risk concentrations are being taken into account in particular.

Trading activities are restricted to counterparties for whom the requisite limits are in place. All trades are immediately taken into account for the purposes of borrower-related limits. Compliance with limits is monitored in real time by Risk Controlling. Persons holding position responsibility are informed about relevant limits and their current usage, regularly and without delay.

In principle, Aareal Bank pursues a ‘buy and manage’ strategy in managing its credit portfolio – with the primary objective of holding the majority of loans extended on its balance sheet until maturity; at the same time, targeted exit measures are deployed for actively managing the portfolio and the risks involved.

In summary, during the period under review, the existing set of tools and methods continued to enable the Bank to adopt suitable risk management or risk mitigation measures, where required, without any undue delay.

Credit risk mitigation

The Bank accepts various types of collateral to reduce default risk exposure. This includes impersonal collateral, such as liens on immobile (property) and mobile assets; liens on receivables, such as rents; and third-party undertakings, such as guarantees.

As an international property finance house, Aareal Bank focuses on property when collateralising loans and advances. As a rule, loans are granted and the security interest perfected in accordance with the jurisdiction in which the respective property is located.

Mortgage lending values or fair values are set or determined in accordance with the responsibilities for decision-making on lending, and form an integral part of the lending decision. The values to be determined by the Bank are generally pegged on the valuation prepared by a valuer, which is subject to an internal plausibility check. Any diverging assessment must be substantiated in writing. In any case, the market and mortgage lending values determined by the Bank must not exceed the values assessed by independent internal or external valuers.

To mitigate credit risk, the Bank also accepts collateralisation through a pledge of shareholdings in property companies or special purpose entities not listed on a stock exchange. The Bank has set out detailed provisions governing the valuation of such collateral.

The Bank also accepts guarantees or indemnities as well as financial collateral (such as securities or payment claims) as standard forms of collateral. The collateral value of the indemnity or guarantee is determined by the guarantor’s credit quality. For this purpose, the Bank differentiates between banks, public-sector banks, and other guarantors. The value of financial collateral is determined according to the type of collateral. Haircuts are generally applied when determining the value of guarantees/indemnities and financial collateral.

The defined credit processes provide for the regular review of collateral value. The risk classification is adjusted in the event of material changes in collateral value. An extraordinary review of collateral is carried out where the Bank becomes aware of information indicating a negative change in collateral value. Moreover, the Bank ensures that disbursement is only made after the agreed conditions for payment have been met. Collateral is recorded in the Bank’s central credit system, including all material details.

Credit risk mitigation for trading activities

To reduce counterparty credit risk in Aareal Bank’s trading business, the master agreements for financial derivatives[1)] and master agreements for securities repurchase transactions (repos) used by the Bank provide for various credit risk mitigation techniques, via mutual netting framework agreements.

The master agreements for financial derivatives used by the Bank contain netting framework agreements at a single transaction level (so-called “payment netting”), and arrangements for the termination of individual transactions under a master agreement (so-called “close-out netting”).

[1)] Any comments below referring to the German Master Agreement on Financial Derivatives (Deutscher Rahmenvertrag für Finanztermingeschäfte – “DRV”) also pertain to the master agreement issued by the International Swaps and Derivatives Association Inc. (ISDA) (the “ISDA Master Agreement”). Both agreements are standardised agreements recommended by leading associations – among others, by the Association of German Banks (Bundesverband deutscher Banken – “BdB”).

In general, all master agreements are based on the principle of a common agreement. This means that, in the case of a termination, the individual claims are netted, and that only such net amount can and may be claimed with regard to the defaulted counterparty. This claim must not be affected by any insolvency, i.e. it must be legally valid and enforceable. This, in turn, means that the jurisdictions concerned must recognise the concept of a common agreement which protects the net amount of the claim from imminent access by the insolvency administrator.

Above all, the close-out netting is subject to (international) legal risks. The Bank reviews these legal risks by reference to legal opinions regarding the validity and enforceability of mutual netting framework agreements in the case of a counterparty's insolvency. These legal opinions are evaluated based on various criteria such as product type, jurisdiction of the registered office and branch office of the counterparty, individual contract supplements and other criteria, and using a database developed for this purpose. In doing so, the Bank decides for each individual transaction whether or not netting is possible. The Bank uses eligible bilateral netting framework agreements within the meaning of the CRR for all transactions with financial institutions; in many cases there are additional collateral agreements which further reduce the relevant credit risk.

The Bank enters into repo transactions both on a bilateral basis and via Eurex Clearing AG as a central counterparty. For repo transactions, depending on the counterparty, payment or delivery netting is agreed upon. Master agreements for repo transactions generally contain provisions on close-out netting. The Bank does not use the option permitted by regulatory authorities to reduce capital requirements for repo transactions.

Furthermore, counterparty credit risk is reduced through derivatives settlement via central counterparties (CCPs): Aareal Bank uses Eurex Clearing AG and LCH.Clearnet Limited.

The Bank uses an internal rating system to assess the credit quality of counterparties. Credit Transaction Management is responsible for the daily valuation of the Bank's trades, including collateral accepted or pledged, and using validated valuation procedures.

Collateral for derivative transactions is usually provided in cash. Repo transactions are usually collateralised through securities, pledged on a daily basis.

Some collateral agreements provide for higher collateral levels in the event of material downgrade to a contracting party's rating.

Country risks

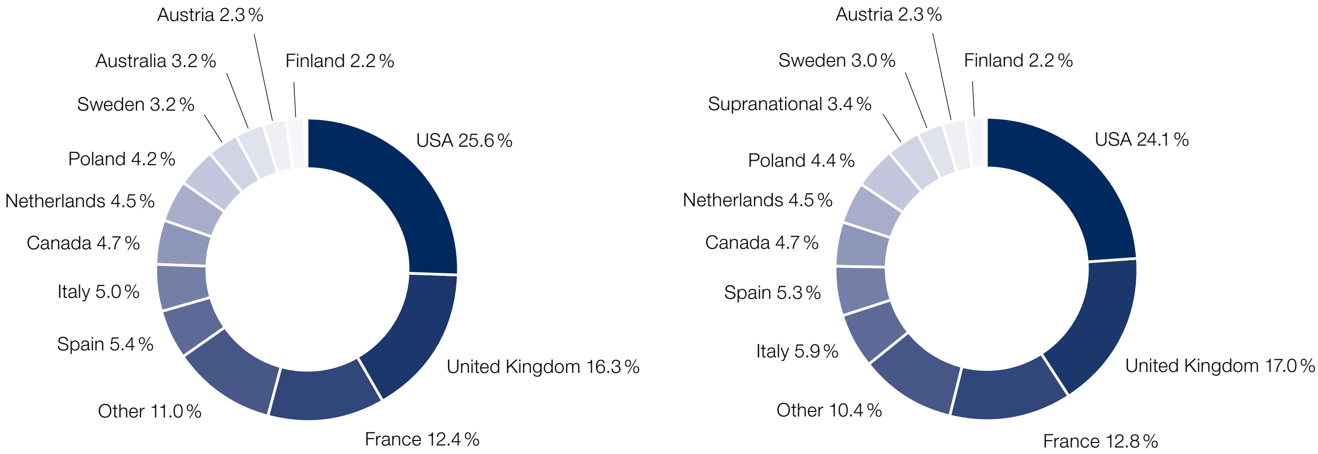
Our comprehensive approach to risk management also includes measuring and monitoring country risk exposure. When defining country risk, in addition to the risk of sovereign default or default of state entities, Aareal Bank also considers the risk that a counterparty could become unable to meet its payment obligations as a result of government action, despite being willing and able to pay, due to restrictions being imposed on making payments to creditors (transfer risk). Country risk exposure is managed using a cross-divisional process. The respective country limits are determined on the basis of a country risk assessment by the Bank's senior management. The Risk Controlling division is responsible for the continuous monitoring of country limits and limit utilisation, and for periodical reporting.

The diagram below illustrates the risk exposure by country (comprising receivables and off-balance sheet obligations) in the Bank's international business, at year-end. In the property financing business, country exposures are allocated by location of the property used as collateral. For exposures not collateralised by property, the allocation is based on the borrower's country of domicile. This reflects the exposure of the property finance business, as well as the activities of Treasury.

Breakdown of country exposure in the international business

%

31 Dec 2022 | 31 Dec 2021



Interest rate risk in the banking book

Definition

Interest rate risk in the banking book (IRRBB) is defined as the risk exposure of instruments held in the banking book which are sensitive to changes in interest rates, caused by yield curve shifts.

Specifically, for Aareal Bank this includes:

- risks arising from maturity transformation in the event of yield curve shifts (so-called gap risk), which, in turn, are broken down into:
  - risks from cash flows which are sensitive to interest rates, relative to the general yield curve (interest rate risk or repricing risk);
  - risks arising from the valuation of future cash flows, relative to the general yield curve (yield curve risk);
- risks from cash flows which are sensitive to interest rates, in terms of spreads to the general yield curve (basis risk);
- risks from explicit and implied options (option risk);
- risks from fluctuations in the value of fund assets (fund risk); and
- risks from changes in Aareal Bank's specific funding spreads (funding risk).

Risk measurement and monitoring

Risk Controlling informs the members of the Management Board responsible for Treasury and risk monitoring about the risk position and the present-value exposure to interest rate risk in the banking book on a daily basis (the 'economic value of equity' perspective). This is supplemented on a monthly basis by a presentation of potential plan deviations of income in case adverse interest rate scenarios occur (earnings perspective). The interest rate scenarios used for the measurement of potential plan deviations comprise interest rate shocks (both increases and reductions) as well as time-based increases or reductions of the interest rate projection used to determine planned interest income.

The present value VaR concept has been broadly accepted as the predominant method for measuring economic interest rate risk in the banking book. VaR quantifies risk as the maximum loss that will occur within a certain period of time, and given a defined probability.

A variance-covariance approach (delta-normal method) is used throughout the Group to determine the VaR indicator. Determined on a daily basis for the Group, the VaR figure takes into account the correlation between individual risk types. Statistical parameters used in the VaR model are calculated directly from a 250-day historical data pool maintained within the Bank. The loss potential is determined applying a 99.9 % confidence interval under the economic perspective.

By their very nature, VaR calculations are based on numerous assumptions regarding the future development of the business, and the related cash flows. Key assumptions used include current account balances and deposits at notice which are factored into calculations for a period of up to ten years (2.24 years on average), using the average residual amount of deposits observed in the past. Loans are taken into account using their fixed-interest period (for fixed-rate exposures), or using their expected maturity (variable-rate exposures). Aareal Bank Group's consolidated equity is not taken into account as a risk-mitigating item. This tends to overstate VaR, demonstrating our goal to pursue a conservative approach adopted in our risk measurement processes.

In addition to this and in line with EBA/GL/2018/02 (Guidelines on the management of interest rate risk arising from non-trading book activities), the change in net interest income is determined in the relevant interest rate shock scenarios. Net interest income equals the difference between interest income and interest expenses on all interest-bearing assets and liabilities in the banking book, including deriva-tives and off-balance sheet items in accordance with IFRSs. In contrast to a present-value analysis, net interest income is not limited to modelled earnings contributions of existing assets and liabilities as at the planning/forecast date, but additionally includes income and expenses from planned new business and renewals. Changes essentially reflect the diverging developments of forward interest rates prior and after an interest rate shock, as well as the resulting modelled impact on client behaviour.

Interest rate sensitivity

An additional instrument used to quantify interest rate risk exposure is the calculation of interest rate sensitivity, expressed by the so-called 'delta' parameter. The first step to determine this parameter requires calculating the present values of all asset and equity/liability items on the statement of financial position. In a second step, the interest rates of yield curves used for this calculation are subjected to a one basis point parallel shift up (a method known as the 'key rate method'). Delta is the present value of the profit or loss resulting from this yield curve change.

Present-value impact of an interest rate shock

The following tables show the changes in present value as prescribed by BaFin circular 06/2019, applying EBA guidelines EBA/GL/2018/02 on controlling interest rate risk in the banking book (IRRBB).

The standard test prescribed therein outlines present-value changes in the banking book in the event of a maximum 200 basis point parallel shift for each currency. As in the previous years, the ratio of the aggregate results to Aareal Bank Group's regulatory capital is clearly below the prescribed threshold of 20 %.

	31 Dec 2022		31 Dec 2021	
	-200 bp	+200 bp	-200 bp	+200 bp
€ mn				
EUR	-40	23	-23	101
GBP	15	-25	8	-16
USD	18	-14	84	-43
Other	6	-6	10	-9
Total	**-1**	**-22**	**79**	**33**
Ratio to regulatory capital requirements in ac-cordance with Basel III (%)	**0.0**	**0.7**	**2.6**	**1.1**

Furthermore, present-value changes are determined (and their ratio to Tier 1 capital shown) for six early-warning indicators, applying the prescribed scenarios. The ratio of the aggregate result to Aareal Bank Group's Tier 1 capital in accordance with Basel III is clearly below the prescribed threshold of 15 %.

€ mn	31 Dec 2022	31 Dec 2021
Parallel shock up	-28	29
Interest rate coefficient for parallel shock up (%)	1.0	1.1
Parallel shock down	4	80
Interest rate coefficient for parallel shock down (%)	0.1	3.1
Steepener shock	7	64
Interest rate coefficient for steepener shock (%)	0.3	2.4
Flattener shock	-24	-26
Interest rate coefficient for flattener shock (%)	0.9	1.0
Short-term rates shock – up	-29	-22
Interest rate coefficient for short rates shock up (%)	1.0	0.8
Short-term rates shock – down	22	81
Interest rate coefficient for short rates shock down (%)	0.8	3.1
Tier 1 capital in accordance with Basel III	**2,768**	**2,622**

Net interest income is a metric derived from the income statement. The earnings risk is measured based on the changes in net interest income of the next twelve months as a result of a parallel shift of the yield curve by 200 basis points. In this context, assumptions regarding client behaviour and the competitive environment in such a scenario are especially subject to idealised model parameters.

Pension risks

Pension risks arise from the measurement of pension obligations entered into, and of plan assets held under pension plans. Risk is miti-gated by structuring plan assets – largely a special investment fund held in trust – accordingly.

VaR, which requires sensitivity data for risk factors (representing exposure) as well as a covariance matrix of such risk factors (volatility and correlation) to map market dynamics, is calculated as the simplest stochastical model in the delta-normal approach.

Pension risks are managed directly by the Asset-Liability Committee (ALCO); for this purpose, the ALCO has also assumed the function of Investment Committee for the plan assets. Pension obligations and plan assets are subject to regular risk reviews and assessments.

Market risks

Definition

Market risks are broadly defined as the threat of losses due to changes in market parameters; this refers to market risks which are not assigned to the IRRBB. In particular, this also encompasses any type of spread risk exposure of instruments held in the banking book which are sensitive to changes in interest rates, and which are neither included in IRRBB nor in counterparty credit risk. Specifically, for Aareal Bank this includes:

- risks resulting from fluctuations of spot foreign exchange (FX) rates (spot FX risk);
- risks resulting from fluctuations of forward foreign exchange rates (forward FX risk); and
- risks from the regulatory review of the trading book (Financial Risk in the Trading Book – FRTB).

Since Aareal Bank did not pursue any trading book activities (as defined by the CRR) during the period under review, trading book risks had no relevance.

Commodities are irrelevant for the Bank's business. Currency risks are controlled through derivatives.

Additional elements of market risk are:

- valuation risks due to changes in credit spreads (credit spread risk);
- specific price risks from the bond portfolio, wherein the bonds are mainly sovereign bonds (sovereign risk);
- risks from adjustments to the credit valuation of OTC – derivatives (CVA risk).

To differentiate spread risks (credit spread risk and sovereign risk) in terms of their credit risk exposure, reported market risk is adjusted accordingly.

Risk measurement and monitoring

Risk Controlling informs the members of the Management Board responsible for Treasury and risk monitoring about the risk position and exposure to other market risks on a daily basis.

The VaR concept has been broadly accepted as the predominant method for measuring economic market risk. VaR quantifies risk as the maximum loss that will occur within a certain period of time, and given a defined probability.

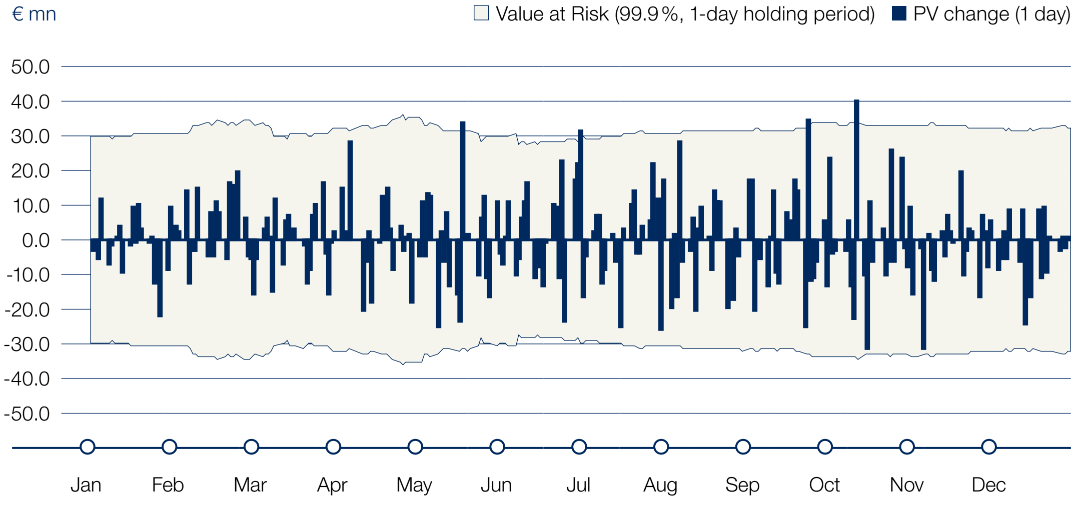
A variance-covariance approach (delta-normal method) is used to determine the aggregated VaR indicator for market risk. Determined on a daily basis for the Group, the VaR figure takes into account the correlation between individual risk types. Statistical parameters used in the VaR model are calculated directly from a historical data pool maintained within the Bank, which covers at least 250 days[1]. The loss potential is determined applying a 99.9 % confidence interval.

Backtesting

The quality of forecasts made using statistical models is checked through a monthly backtesting process. The quality of the statistical procedure used to measure risk is checked using a method referred to as binomial test, whereby daily profits and losses from market fluctuations are compared with the upper projected loss limit (VaR) forecast on the previous day (known as 'clean backtesting'). In line with the selected confidence interval of 99.9 %, only a small number of events are expected to break out of the VaR projection.

The backtesting exercise shown below comprises all risk positions subject to daily changes from the 'Market risks' category.

Present values and 1-day VaR during the course of 2022



[1] Historical data covering two years is used for the sub-risk type of credit spread risk.

No negative outliers were observed at Group level during the past 250 trading days, affirming the high forecasting quality of the VaR model we use.

Operational risks

Definition

The Bank defines operational risk as the threat of losses caused by inappropriate internal procedures, human resources and systems (or their failure), or through external events. This definition also includes legal risks. To the extent that they are caused by operational risks, ESG risk factors as well as model and reputational risks are also taken into consideration within this type of risk.

Risk strategy

The primary purpose of the risk strategy is to provide strategic guidance on the conscious and professional handling of operational risk. The strategy covers the organisational framework as well as the fundamentals of reporting related to this topic, supplementing and specifying the existing central rules set out in the Risk Appetite Framework.

To facilitate a holistic risk management of operational risk, Aareal Bank has implemented a governance structure which puts the "three lines of defence" concept into operational practice. Given that, in principle, the management approach is organised in a decentralised manner, located in the various divisions or subsidiaries, there is a distinct emphasis on a strong first line of defence which is responsible for risks on a single-risk basis. The centralised OpRisk Controlling department, which is part of the Non-Financial Risks division, monitors the first-line activities as an independent second line of defence. In this context, the general second line of defence is supplemented by specialised monitoring functions known as 'specialist second lines'.

Process risks are addressed through the internal control system (ICS). The design of Aareal Bank Group's ICS emphasises mitigating material process-inherent risks through appropriate and effective key controls which are compiled in a dedicated inventory for Aareal Bank.

The Non-Financial Risks division is responsible for monitoring compliance risks, as well as risks related to financial crime. The Group-wide objective of the compliance management system is to mitigate liability risks in the form of potential fines and penalties for the Bank or its subsidiaries and their board members. In addition, Aareal Bank Group's positive reputation as a group of companies with integrity vis-à-vis external stakeholders such as business partners, counterparties and investors is to be maintained and further strengthened. The Anti Financial Crime strategy serves to manage risks related to money laundering, terrorist financing, sanction breaches and fraud in a professional and conscious manner. It encompasses applicable qualitative standards (for example, listing business areas and sectors not served) and quantitative key risk indicators (such as thresholds for high-risk clients and politically exposed persons) for the purpose of risk monitoring.

In order to mitigate legal risks, Aareal Bank's central Legal department and decentralised legal units monitor any litigation the Bank is involved in (whether in court or out-of-court), and deal with any legal issues of fundamental importance, and provide legal advice on day-to-day business. Legal compiles all information concerning any legal disputes involving Aareal Bank Group, whether in or out of court. The Bank's decentralised operating legal entities, as well as the legal departments of subsidiaries submit quarterly reports on legal risks identified to Aareal Bank's legal department; where particular risks have occurred, such reports are submitted on an event-driven basis. When required, Aareal Bank's legal department discusses and coordinates any concrete measures with the reporting unit. The legal department reports to the Management Board, (at least) on a quarterly basis, as well as on an event-driven basis. Tax risks including related legal risks are monitored and managed separately by Aareal Bank's tax department. The tax compliance management system actively reduces the risk related to tax law compliance and fraud cases, for example by setting standardised work instructions and controls, both within the tax department and in interfaces with other divisions.

Information Security & Data Protection has central responsibility for monitoring risks affecting operational resilience. The division defines Bank-wide requirements and initiates different measures to mitigate information security risk and to achieve the level of security targeted in the Information Security Framework Directive. This includes raising awareness amongst internal and external employees through corresponding training courses and the exchange of information on cyber threats via the communication channels with ECB, BaFin and BSI. To mitigate outsourcing risk, the responsible outsourcing organisational units regularly assess the performance of external service providers, using defined criteria. The results of this process, and control measures taken, are consolidated and communicated to the Bank's Management. Business Continuity Management (BCM) mitigates business continuity risks by defining the emergency organisation, setting out emergency and crisis plans for the Bank's business processes identified as time-critical. Business will be managed in accordance with these plans in the event of an emergency or crisis.

Risk measurement and monitoring

It is the objective of the policy pursued by Aareal Bank to achieve a risk-minimising or loss-limiting effect at an early stage by employing a pro-active approach.

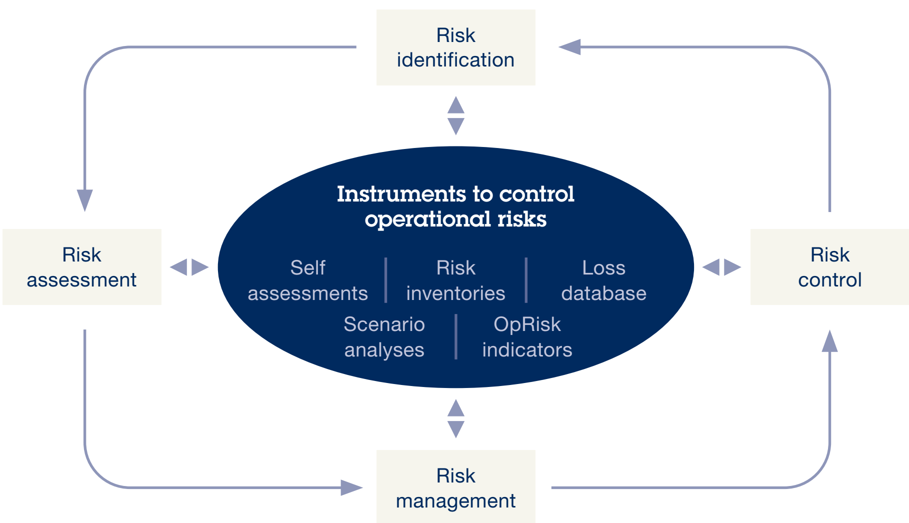
The Bank currently uses the following risk control tools to manage operational risks:

- Self-assessments: analysis thereof can provide management with an indication of any potential risks within the organisational structure;
- risk inventories and subsequent risk assessments that include a periodic systematic identification and compilation of all relevant risks and their qualitative and quantitative assessment;
- a loss database, in which relevant risk events incurred are reported, and in which they can be monitored until they are officially closed;
- operational risk indicators for all risk levels that show current threat potential using a defined 'traffic light' system;
- stress tests based on hypothetical as well as historical scenarios and sensitivity analyses of risk inventory data, carried out in order to gain indicators for developments which may potentially threaten the Bank's continued existence.

Data is collected on a decentralised basis and all material operational risks of the Group compiled centrally.

The tools described above are used to prepare the regular risk reporting to the Bank's senior management. Taken together, these tools for managing operational risks result in an integrated control circuit which leads to risk identification, evaluation, and management – through to risk control. The responsibility for implementing operative risk-reducing measures rests with those responsible for the Bank's risk management. The utilisation of freely available funds for operational risks – as part of the Bank's risk-bearing capacity – is determined using the regulatory standardised approach under Pillar I.

Management of operational risks



No material risk concentrations were evident in the 2022 financial year. Risk events are recorded in a database on an ongoing basis. The aggregate impact of such risk events during the year under review amounted to less than 5 % of the regulatory capital to be maintained for operational risks. Supplementary operational risk management tools – in particular, the monitoring of indicators, scenario analyses and the self-assessment – do not indicate potential elevated risk either.

Investment risks

Definition

Aareal Bank defines investment risk as the threat of unexpected losses incurred due to an impairment of the investment's carrying amount, or a default of loans extended to investees. The concept of investment risk also encompasses additional risks arising from contingencies vis-à-vis the relevant Group entities.

Risk measurement and monitoring

The model for investment risk was thoroughly revised, with a new model implemented in 2022. The new model breaks down investments outside the regulatory scope of consolidation into two groups, whereby risk-equivalent exposures are determined for material investments using the regulatory IRB formula. For non-material investments, equity coverage is determined using the simple risk weight function for investments in accordance with the CRR. Risk exposure for investments within the regulatory scope of consolidation is measured using the look-through principle, based on the assets of the respective investment.

The existing procedures used to measure and monitor risk exposure are supplemented by subjecting the equity portfolio to regular stress testing.

Strategy Development, as well as Finance & Controlling and Risk Controlling, are responsible for measuring and monitoring investment risk exposure.

Risk Controlling is responsible for submitting a quarterly equity investment risk report to the Bank's Management Board.

Property risks

Definition

We define property risk as the threat of unexpected losses arising from changes in the value of property held by the Bank, or by fully-consolidated subsidiaries.

Due to the special character of property risk (involving marketing risks, for example), special methods and procedures are employed to deal with investment risk. All relevant property holdings are subject to regular audits, including a review and assessment of their risk situation.

Risk measurement and monitoring

In order to measure and monitor risks, property yields are analysed for different regions and property types, and over the time horizons available: on this basis, potential yield increases for different regions and property types over a one-year horizon are determined applying a 99.9 % confidence interval. A property's risk contribution results from the difference between the current market value and the property value adjusted for the yield increase.

Business and strategic risks

Definition

Business and strategic risks are defined as potential risks of all kinds that may potentially threaten achievement of corporate objectives, and which may result (for example) from changes in the competitive environment, or from an unsuitable strategic positioning in the macro-economic environment. We distinguish between allocation risk and investment risk, whereby allocation risk is defined as a divergence of operating results due to lower-than-expected income from allocated capital that cannot be offset through reductions in costs or administrative expenses. Investment risk is defined as the risk that the Bank is unable to compensate for any divergence in operating results through the results from activities or investments in alternative business segments that generate results to the same or similar extent.

Risk measurement and monitoring

Allocation risk is already covered by various planning scenarios, and is thus incorporated in aggregate risk cover.

Investment risk is measured across segments: it is quantified assuming that additional upfront investment is required to establish an investment opportunity which was previously unavailable. Such upfront investment is assumed to represent potential risk.

Liquidity risks

Definition

Liquidity risk in the narrower sense is defined as the risk that current or future payment obligations cannot be met in full or on time. Aareal Bank Group's liquidity risk management system is designed to ensure that the Bank has sufficient cash and cash equivalents to honour its payment obligations at any future point in time. The risk management processes have been designed to cover not only the liquidity risk in the narrower sense (insolvency risk), but also market liquidity risk and refinancing risk, including cost risk which is measured and limited accordingly as a component of the IRRBB. All elements have been integrated in an overarching ILAAP, which maps liquidity risks in both the normative and the economic perspective. Within the framework of Group planning, the Bank considers not only ICAAP risk parameters, but also ILAAP risk parameters for a three-year horizon.

Risk measurement and monitoring

Treasury is responsible for managing liquidity risks, whilst Risk Controlling ensures the continuous monitoring, including a daily liquidity report submitted to Treasury, and a contribution to the monthly risk report to the entire Management Board. The following tools are used for this purpose:

Cash flow forecast

We have developed a cash flow forecast, tracking cash flows from all balance sheet items and derivatives, on a daily basis, over a ten-year period. This liquidity risk information helps to assess the Bank's short-term liquidity position, broken down by currency or product. Strategic liquidity is taken into account using this ten-year cash flow profile. We use statistical modelling to incorporate the expected cash flow profile of products without a fixed contractual lifetime.

Liquidity run-off profile

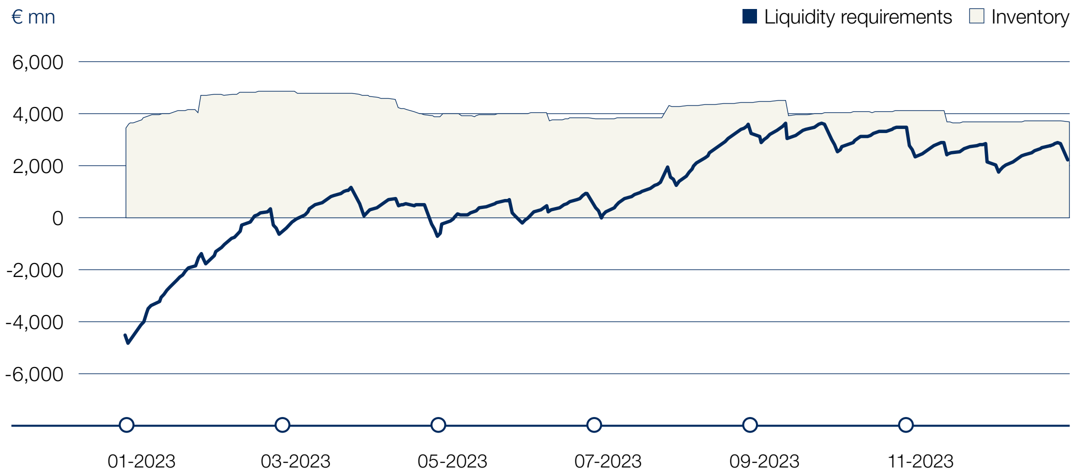
The appropriateness of the Bank's liquidity from an economic perspective is assessed using a liquidity run-off profile (liquidity risk model): the aggregate of all conservatively expected cash inflows and outflows over a three-month period is compared to the liquidity stock. This liquidity stock comprises all assets that can be liquidated at very short notice. The difference of both figures (in absolute terms) indicates excess liquidity, once all claims assumed in the run-off profile have been fulfilled through the liquidity stock. There were no liquidity shortages throughout the period under review.

Stress testing
Moreover, we employ stress tests and scenario analyses to assess the impact of sudden stress events onto the Bank's liquidity situation. The various standardised scenarios used, which include historic, idiosyncratic, market-wide and combined scenarios, are evaluated on the basis of the liquidity run-off profile.

We generally consider the withdrawal of deposits from the housing industry as the most significant scenario. Even in this stress scenario, liquidity is sufficient to cover the expected liquidity needs under stress conditions.

Time to illiquidity
To safeguard adequate liquidity beyond the three-month horizon covered by the liquidity run-off profile, we use the concept of time to illiquidity as a parameter. For this purpose, a liquidity run-off profile was developed which compares liquidity requirements occurring with the liquidity stock, for a one-year period. Time to illiquidity ("TtI") denotes the remaining period (expressed in days) during which Aareal Bank Group can be regarded as sufficiently liquid, even under adverse conditions. In other words, liquidity requirements (including security add-on for adverse future events) do not exceed the liquidity stock. The calculations are based on contractual cash flows and the short-term risk assessment methodology (liquidity run-off profile), as well as the portfolio development within the current plan scenario.

The following chart shows the projected development of the liquidity stock, together with aggregate liquidity requirements (incorporating planned portfolio developments, and including security add-ons for adverse future events) until the end of 2023. The chart demonstrates that the liquidity stock will always exceed liquidity requirements, even under adverse conditions.



Further details are provided in the comments on the Bank's liquidity in the section on the "Financial position".

Funding profile
Diversifying the Bank's refinancing profile by type of investor, and by product, represents a further key aspect of our approach to liquidity risk management. Core sources of funding such as customer deposits and funds invested by institutional clients – alongside covered and uncovered bond issues – constitute the foundation of our liability profile. In this context, we refer to the comments regarding the breakdown of funding between money markets and capital markets, as set out in the description of financial position.

Concentration limits
Besides the pure measurement of risk indicators, we also monitor concentrations of liquid assets and of funding sources, determining the percentage share of the ten largest counterparties and/or positions, relative to the total portfolio.

A limit is set for each indicator in order to restrict the dependency upon individual positions or counterparties.

LCR forecast

We have developed the LCR forecast as a measurement tool designed to ensure that we maintain compliance with the regulatory Liquidity Coverage Ratio. A preview of the Liquidity Coverage Ratio is calculated over a horizon of up to three years, determining the ratio of highly liquid assets to cumulative net cash outflows for various end-of-month dates – thus identifying any potential liquidity shortfalls or reserves.

NSFR forecast

The NSFR forecast, which is a projection of the Net Stable Funding Ratio over a period of up to three years, represents another important component of our liquidity management. This measurement tool allows us to forecast the regulatory Net Stable Funding Ratio for future dates, thus identifying any potential liquidity shortfalls or reserves in terms of the NSFR at an early stage.

Long Term LAB

The long-term liquidity run-off profile (Long Term LAB) provides a forecast of the economic perspective and enables an outlook of the liquidity run-off profile (liquidity risk model) over a period of up to three years. This liquidity run-off profile compares the expected liquidity requirements and available liquidity for different scenarios at various points in time in the future; thus, any potential liquidity shortfalls or liquidity reserves arising in the future are identified with regard to the liquidity run-off profile.

Accounting-related ICS and RMS

Tasks of the accounting-related Internal Control System (ICS) and the Risk Management System (RMS)

The accounting-related Internal Control and Risk Management System includes principles, procedures and measures to ensure the effectiveness and the efficiency of internal and external accounting, in accordance with applicable legal provisions. The tasks of the accounting-related Internal Control System mainly include ensuring proper conduct of business activities, guaranteeing proper internal and external accounting, as well as ensuring compliance with relevant statutory and legal requirements applicable to the Company.

The objective of the accounting-related Risk Management System is to identify, assess and limit risks which may impede the compliance of the financial statements with applicable rules and regulations. As with any other Internal Control System, the accounting-related ICS and RMS may only provide reasonable – but not absolute – assurance with regard to achieving this objective, regardless of how much care is used to design and operate this system.

Organisation of the accounting-related ICS and RMS

The Internal Control System of Aareal Bank takes into account the principles established by the Minimum Requirements for Risk Management (MaRisk) related to the company-specific design of the ICS. The design of this Internal Control System comprises organisational and technical measures to control and monitor the Company's activities, covering all entities of Aareal Bank Group. The Management Board of Aareal Bank AG is responsible for designing, implementing, applying, further developing and reviewing an appropriate Internal Control System, in particular with regard to the accounting process. The Management Board makes decisions as regards the scope and the design of specific requirements; it has defined the responsibilities for the individual process steps in connection with accounting by means of organisational guidelines, and has delegated these responsibilities to individual organisational units.

Aareal Bank prepares its financial statements in accordance with the provisions of the German Commercial Code (Handelsgesetzbuch – "HGB") and its consolidated financial statements in accordance with International Financial Reporting Standards (IFRSs) as applicable in the European Union. The Finance & Controlling division controls accounting processes, to ensure conformity with legal requirements, as well as with any further internal and external provisions. The accounting-related requirements that have to be applied are documented in guidelines and IT requirements.

For the consolidated financial statements in accordance with IFRSs, the companies that form part of the Group create an IFRS package as at the respective reporting date. This includes financial statements prepared under IFRSs and in accordance with the IFRS Group Accounting Manual, as well as the Notes and consolidation information (intercompany balances). All packages are recorded by the Finance & Controlling division in a consolidation software and aggregated for the purpose of preparing the consolidated financial statements.

The Supervisory Board is responsible for monitoring the Management Board. Within the scope of financial reporting, it approves the single-entity financial statements of Aareal Bank AG as well as the consolidated financial statements and group management report. Measures taken by the Supervisory Board to ensure an efficient performance of its control functions include the establishment of an Audit Committee, which is primarily responsible for financial reporting issues and monitors the effectiveness of Aareal Bank's Internal Control System. It analyses and assesses the presented financial statements and internal risk reports as well as the quarterly reports submitted by Internal Audit. In addition, the Audit Committee is responsible for determining the focal points of the audit, as well as for evaluating the auditors' findings. The Audit Committee includes an expert in the fields of accounting or auditing, pursuant to section 100 (5) of the German Public Limited Companies Act (Aktiengesetz – "AktG").

Internal Audit also assumes a monitoring function not related to the process. It reports directly to the Management Board, and provides auditing and consulting services which are designed to optimise Aareal Bank's business processes with regard to accuracy, safety and efficiency. The Internal Audit division supports the Management Board by evaluating the effectiveness and appropriateness of the process-dependent Internal Control System and of the Risk Management System in general. Any detected weaknesses regarding the identification, evaluation and reduction of risks are reported and addressed within the context of specific action plans.

Internal Audit also performs Group audit functions for Aareal Bank's subsidiaries, within the context of the Group's risk management. The review of the risk management's effectiveness and appropriateness covers the risk management and risk control systems, reporting, information systems, and the accounting process. To perform its tasks, Internal Audit has full and unrestricted information rights with respect to activities, processes and IT systems of Aareal Bank AG and its subsidiaries. Internal Audit is informed on a regular basis about material changes related to the Internal Control and Risk Management System.

The review of process-integrated controls conducted by Internal Audit is based on a set of internal regulations, procedural instructions and guidelines of Aareal Bank Group. The audit activities of Internal Audit comprise all of the Group's operational and business processes, and are carried out using a risk-based approach.

The Management Board regularly assesses the appropriateness and effectiveness of the ICS and RMS. This assessment is primarily based on the result of the semi-annual ICS report and the monthly risk reporting and provides the Management Board with an overview of the key elements of Aareal Bank Group's ICS and RMS. As part of the reporting, the Management Board thus receives a summary of the assessment activities regarding the appropriateness and effectiveness of the ICS and RMS, as well as of any anomalies that were identified during these activities. The information contained in the ICS report and risk reporting are also presented to Aareal Bank AG's Supervisory Board as a report on the effectiveness of the ICS and RMS. The assessment of the ICS is based on the evaluation of the decentralised ICS officers, which includes internal and external audit results in particular. On this basis, the Management Board has no evidence that the ICS or RMS in their entirety are not appropriate or effective as at 31 December 2022.

Irrespective of this, the effectiveness of any risk management and control system is subject to an inherent restriction. Therefore, no system – even if it was evaluated as appropriate and effective – can guarantee a 100% prevention of risks or process violations under any circumstances. In addition to the ICS and RMS, and especially for those processes and procedures that, due to high momentum and a large number of new regulations, are not yet at the same stage of maturity as established processes, Aareal Bank has established a Code of Conduct for its employees. This Code of Conduct makes ethical conduct a guideline and minimum requirement of corporate action in dealing with new or unregulated matters, thus largely minimising violations of internal and external regulations.

Components of the accounting-related ICS and RMS

Within Aareal Bank, various measures related to the Bank's organisational structures and procedures help to fulfil the monitoring duties within the framework of its Internal Control System.

A prerequisite for the monitoring system to work efficiently is a Written Set of Procedural Rules governing the distribution of tasks between the individual divisions and the scope of the respective activities. The organisational structure of the Finance & Controlling division is set out in the Bank's organisational guidelines. Aareal Bank's accounting system is structured observing the principle of separation of functions, which makes for a split between operative and administrative roles, and is designed to ensure a sufficient level of control.

Various guidelines exist for activities and processes. These guidelines are set out in the Written Set of Procedural Rules of Aareal Bank and available for inspection for all affected employees. There are requirements as regards data entry and control – as well as data storage – which have to be observed in general by all of the Bank's posting units. If necessary, results are reconciled across divisions or companies. Uniform accounting methods and measurement techniques are guaranteed through guidelines applicable throughout the Group. The requirements of these Group-wide guidelines substantiate legal provisions, and are adjusted on an ongoing basis to take current standards into account. The valuation techniques used, as well as the underlying parameters, are controlled regularly, and adjusted if necessary.

In addition, the Bank's Risk Manual summarises the material elements of Aareal Bank Group's Risk Management System. Specifically, the Manual describes the organisational workflows as well as methods and instruments used in the context of risk management. In this context, reference is made to our explanations in the Risk Report.

Clearly-defined rules as regards delegation of authorities facilitating the allocation of professional responsibilities also contribute to reliable financial reporting. Any decisions taken are always based on relevant authorities. Internal controls defined on the basis of risk considerations are embedded in the accounting process. Compliance with the principle of dual control in all material processes is one of the principles for ensuring accurate accounting. Where no integrated approval system/dual control feature has been implemented in the accounting IT systems for material transactions, this has been integrated and documented in the manual process workflows.

Adherence of accounting to generally accepted accounting principles is ensured by both preventive and detective controls, as well as through a review of processed data. The preparation of the consolidated financial statements is characterised by multiple analyses and plausibility checks. Besides the evaluation of individual accounting issues, these include comparisons of periods, and between plan and actual data. Control processes have been implemented for both manual and automated accounting transactions.

In order to increase the level of control quality, all relevant divisions are involved in the reconciliation process. An example of cross-divisional reconciliation is the process for the preparation of annual and interim reports. All divisions involved must ensure and (prior to preparation by the Management Board) confirm the quality of the sections of the reports they are responsible for. This represents an additional control level for the data to be disclosed.

In terms of organisational workflows, the accounting-related Internal Control and Risk Management System is based on a comprehensive standardisation of processes and software. Aareal Bank Group uses both standard and customised software. The consolidation software provides technical support to the reconciliation of Group-internal relationships, in a clearly-defined process. The data of the units included is reported using a uniform standardised chart of accounts. The Group's accounting-related IT systems were designed in such a way that both manual controls and automatic plausibility checks are performed for material technical and procedural system steps of the applications used. The controls in relation to processing within the IT systems are also integrated in the processes, as well as being independently performed. Process-integrated controls comprise, for example, the review of error and exception reports or the regular analysis of internal service quality. In contrast, Internal Audit conducts IT reviews independently from processes.

Data and IT systems must be protected from unauthorised access. A differentiated access authorisation concept is in place for the systems used for finance and accounting, preventing manipulation of data. Access authorisations are allocated to the responsible employees, reviewed regularly, and adjusted if necessary in accordance with internal criteria.

Aareal Bank reviews its accounting-related Internal Control and Risk Management System on an ongoing basis. Necessary adjustments are made with respect to the accounting process based on the Bank's reviews. Adjustments may have to be made, for example, in connection with changes in the Group structure, to the business model, or due to new legal requirements.

Aareal Bank has to comply with legal requirements. If these requirements change, for example in the form of new laws or changes in accounting standards, the processes or IT systems will be adjusted as required in separate projects across divisions – based on a clearly-defined allocation of functions, and the accounting-related Risk Management System will be adjusted to take the amended rules into account. Current developments of statutory and legal provisions applicable for Aareal Bank are constantly monitored and communicated to the relevant divisions. This committee also initiates any required adjustments to be made to systems and processes, and reports the results to the Management Board.

Report on Expected Developments and Opportunities

Macro-economic environment

The economy and the financial and commercial property markets are exposed to a range of risks, with some downside risks intensifying or emerging over the course of 2022, while other risks have subsided. This was due, in particular, to Russia's invasion of Ukraine, which has resulted in tremendous humanitarian and economic problems. Other risks that could have a negative impact include a re-intensifying Covid-19 pandemic, despite a lessening in the severity of the disease, as well as persistently high inflation. Moreover, excessive or inadequate monetary tightening by central banks, increased public and private debt, supply chain disruptions, doubts about the cohesion of the European project, geopolitical risks as well as the consequences of the transformation of the economy towards more climate neutrality represent additional material risks.

The immediate consequences of the war in Ukraine and mutual sanctions between the West and Russia are already having a serious negative impact on many economies, which would likely be exacerbated if the conflict continues. Direct economic effects include supply chain disruptions and higher commodity prices, alongside increased uncertainty and heightening risk aversion amongst market participants, which pose a threat to growth. The war has also fuelled high inflation rates, lowering real incomes and – in conjunction with the increased cost of production and share price declines in the financial markets – burdening aggregate demand.

A re-intensification of the Covid-19 pandemic – due to high rates of new infection and virus mutations or due to vaccination programmes failing to show effect – could slow down or halt global economic activity. A reintroduction of infection control measures may have adverse consequences on demand and the services sector in particular. However, such Covid-related risks have weakened considerably.

While energy and commodity prices were the main drivers of inflation in the first half of 2022, price pressures have become increasingly broad-based, pushing inflation in many economies to its highest level in several decades. To the extent that demand in the future continues to be met by supply shortages, prices of some goods and services may continue to rise, contributing to high inflation rates and possibly to persistently higher inflation expectations.

Another uncertainty stems from the potential for excessive tightening of monetary policy by central banks, accompanied by a further significant increase in key interest rates and faster than expected balance sheet contraction, incurring potentially grave consequences for financial and property markets. For instance, bond market yields could rise significantly, as already observed in 2022, accompanied by valuation declines in equity and property markets, resulting in a loss of wealth. Ultimately, decreasing macro-economic demand and loss of confidence amongst consumers and enterprises would burden the real economy. If borrowing conditions remain restrictive over the medium term, a phase of stagnation could ensue in some economies following a recession. At the same time, however, a reaction that is too weak also constitutes a serious macro-economic risk given the pronounced levels of inflation.

Another risk is rising government indebtedness as a consequence of massive fiscal stimulus alongside the slowdown in economic growth. With the phasing out of net purchases under bond purchase programmes and the increasing monetary tightening of central banks, risk premiums – especially for highly indebted sovereigns – could rise further. Non-financial corporate debt has expanded in many advanced economies, mainly reflecting bond issuance. A renewed escalation in the pandemic situation, reduced macro-economic activity or other risks could offer grounds for downgrading the ratings of these bonds.

Global value and supply chains continue to face disruptions, although an easing was observed over the second half of 2022. If existing supply bottlenecks persist or tighten further, this would constitute a significant risk factor that would slow down economic growth as a whole, with a particular impact on production output in the manufacturing sector.

The political shift away from European cohesion poses a significant threat not only to the EU, but also to Europe, in the longer term. This refers especially to governments in Central and Eastern Europe with nationalist attitudes/tendencies. The Covid-19 pandemic, the slowing of economic growth and concerns about a recession have also elevated the risk of a rise in populism in several countries. The reform backlog and structural economic problems in some euro zone countries present further uncertainties, risk and stress factors. Although the EU's investment package is aimed at supporting these countries in particular, there is still a risk that the measures will not be quite enough to stem structural problems.

The risk of disruption to free trade is still present and could intensify again in the future. In addition, further geopolitical risks, such as cyberattacks, terrorism and sabotage of critical infrastructure, as well as political and military conflicts, could have a significant impact on markets and their participants. The effects of potential decoupling, e.g. between China and Western economies, could also dampen global growth prospects.

The efforts of many countries and companies to limit global warming require a radical transformation of the entire economy. The macro-economic impact of this transition is uncertain, and the actual effects depend on a number of factors. Similarly, this change entails costs that will likely be borne by companies and end-consumers alike. Decarbonisation, for instance, not only involves energy supply, but also requires significant changes in industry, transport, construction and agriculture. The economic transition, however, is also an opportunity – not only for climate action, but also for sectors and property markets if they manage to capitalise on the situation. In addition to the transition costs incurred in decarbonising the global economy, the costs directly attributable to climate change will also increase over the medium term. Extreme weather events, temperature fluctuations and more frequent extreme heat events are causing physical damage that will intensify over time. The extent of the increase in this physical damage will depend on how well the global community succeeds in reducing greenhouse gas emissions.

These factors in the context of overall economic development are also of relevance for the financial and capital markets, as well as property markets, as they could lead to renewed disruptions should they materialise to any significant degree.

Economy

Numerous stress factors support the view that global economic growth will be weaker in 2023 than in 2022. The path of economic development will depend on the extent to which disruptions in global supply chains continue to abate, providing supply-side relief for manufacturing and upward price pressures. Many advanced economies are expected to fall into recession, followed by a recovery from mid-2023 onwards that will be weak in historical comparison. At the beginning of the year in particular, continuing high inflation rates will reduce real household incomes and push up costs for companies, which will have a dampening effect on spending and production. Higher interest rates are also likely to weigh on aggregate demand. Likewise, demand for services is also expected to weaken, following strong gains in 2022 driven by the removal of contact restrictions. As the economy cools off, unemployment rates will also begin to climb again, though they will remain at a low level.

Real gross domestic product in the euro zone is expected to decline overall in 2023, albeit only marginally. High inflation rates and the energy crisis account for the main reasons behind a mild recession over the winter and negative economic growth in the first quarter. Particularly economies with a large industrial sector, such as Germany, should grow more slowly than the euro zone as a whole. Fiscal policy will remain expansionary, but the extent and nature of the measures will vary greatly from country to country.

In the UK, real economic growth is expected to be significantly negative for the full year 2023, led downward by a continued decline in real household incomes and dwindling private consumption. Moreover, increased borrowing costs and a tightening of fiscal policy are putting the brakes on aggregate demand.

Looking to the US, we expect growth to slow in 2023 as a whole, but unlike in the euro zone and the UK, it is still likely to be modestly positive. The combination of high inflation, monetary tightening, the slowdown of the global economy, increased unemployment and falling corporate profits will weigh on investment and private consumption. Private consumption – a mainstay of the economy in the past – will be adversely affected by the removal of income support and the shrinkage of excess savings.

China's economic development in 2023 will be characterised by weak external demand and subdued property investment. However, targeted economic policy relief and infrastructure spending, together with a recalibration of Covid measures will help to deliver positive economic growth. Comparable to China, Australia is also expected to show positive real growth in 2023 – though private consumption is expected to weaken relative to the previous year, as household budgets are severely strained by strong inflation in basic consumer goods. Exports and imports look set to continue their positive momentum, supported by the recovery of the services sector.

Financial and capital markets, monetary policy and inflation

The risks and uncertainty factors referred to above are also significant for the financial and capital markets and could once again cause disruption. Elevated inflation rates, monetary policy tightening, and increased uncertainty were reflected over the course of 2022 in higher refinancing costs, a state of affairs likely to persist in the short term depending on macro-economic and political conditions. Major central banks most recently clearly confirmed their intentions to focus on price stability, and no longer on stimulating the economy and the labour market.

In 2023, we expect the funding markets relevant for Aareal Bank to remain open, and to exhibit greater stability.

In view of the high inflation rates, and despite increased recession risks, monetary policy is expected to become even more restrictive in the coming months. Although inflationary pressure is likely to subside, the major central banks will adhere to the path of monetary tightening for the near term. By mid-2023, key rates in most advanced economies are projected to have risen to restrictive levels, while inflation rates begin to moderate towards their target levels. Accordingly, there should be an easing of pressure to raise rates further. As another instrument of monetary policy, central banks' holdings of securities will be gradually reduced throughout 2023, but this in itself should have only a limited impact on the yields of affected government bonds.

Inflation is expected to fall sharply in most economies in 2023 as sinking commodity prices, slowing economic activity and an unwinding of supply chains feed through to price pressures.

Regulatory environment

While the Covid-19 pandemic had a temporary impact on the regulatory environment, as various regulatory initiatives were postponed and temporary relief for institutions was adopted as an immediate reaction to the outbreak of the pandemic, the trend towards stricter regulatory frameworks is nevertheless expected to continue in the coming years. For instance, the finalisation of the Basel III framework, adopted by the Basel Committee's Group of Governors and Heads of Supervision (GHOS), will bring about extensive changes to the approaches used for determining risk-weighted capital requirements (a concept known as 'Basel IV'). The EU Commission submitted a proposal on this in October 2021, which will now be finalised as part of the trilogue procedure which is expected to take place in the course of 2023 according to the EU timetable. Based on the current status of negotiations, the proposed date for first-time application of the new regulation is 1 January 2025 – two years later than initially planned by the BCBS.

The EU also adopted a package of measures to overhaul its anti-money laundering and countering of terrorist financing frameworks. Aside from a new EU regulation and a revision of the applicable EU directives, it stipulates the creation of a new anti-money laundering and terrorist financing authority from 1 January 2023 onwards, which is to be fully established by 2025.

In addition, over the next few years, the regulatory environment will be increasingly defined by growing requirements with regard to sustainable business and ESG risk management. One of the main foundations here is the introduction and further expansion of the EU taxonomy for the classification of economic activities. Initial, minor disclosure requirements for ESG matters were applicable as of 31 December 2021 for the first time, with the scope increasing over time. Furthermore, the ECB conducted its first climate stress test in 2022. The requirement introduced for the first time under CRR II for large listed institutions to include qualitative and quantitative information on ESG risks in the regulatory disclosure report entered into effect on 31 December 2022.

ESG risk management will also play an increasingly important role in the context of risk management and the SREP. In addition, the supervisory authorities are also considering taking ESG factors into account when determining regulatory capital requirements.

In addition, several countries have already announced to (re-)introduce the countercyclical capital buffer previously suspended in almost all countries due to the Covid-19 pandemic. For instance, the package of macroprudential measures as resolved by the German Federal Financial Supervisory Authority (BaFin) in January 2022 provides for a reinstatement of the countercyclical capital buffer for risk exposures located in Germany as well as the first-time introduction of a sector-specific systemic risk buffer for loans collateralised by residential properties in 2023. This will result in increasing capital buffer requirements for the Bank.

Sector-specific and business developments

Structured Property Financing segment

The macro-economic risks and burdens described above are also of great relevance for the development of property markets.

Demand for commercial properties will vary in 2023, depending on the region and property type. Despite the current economic slowdown and the forecast recessions in many national economies, we continue to see a positive overall environment for property markets. Whilst higher interest rates are expected to influence investment decisions amongst buyers and sellers alike, as well as weighing on transaction volumes, the substantial accumulation of uninvested capital from investors around the world and an increasingly attractive yield level should counteract excessive downward pressure on demand. For the financing markets, the Bank anticipates that competition will persist, especially in regions and for property types that have already experienced high demand in recent years. Higher financing costs should counteract an increase in loan-to-value ratios; we thus assume stable to slightly declining LTV ratios for new business. However, improvements in the market environment could put direct pressure on margins, or result in higher loan-to-value ratios.

Particularly in light of monetary tightening, uncertainty remains for the commercial property sector. For example, the elevated cost of capital associated with rising interest rates will result in a lower valuation of commercial properties if these costs are not offset by rent increases. This is a particular risk for investors with variable interest payments or with a pending refinancing, and it intensifies as loan-to-value ratios rise. Moreover, further significant interest rate increases, for example due to excessive monetary tightening by central banks or very high inflation rates in the medium term, could put pressure on commercial property rents and cash flows through a decline in aggregate demand.

Other uncertainty factors and risks in the macro-economic environment are also relevant for commercial property markets, and various factors are expected to have an impact on how commercial property values develop in 2023. For example, increasing political uncertainty, economic downturns or investor restraint might all negatively affect property values. Despite an increasing tendency to view Covid-19 as an endemic rather than a pandemic disease, future new infections and hospitalisation rates continue to pose a risk for commercial property markets. This uncertainty relates in particular to possible new infection control measures, which are likely to have varying effects depending on the country and type of property, albeit not at the same level as in the past. A renewed tightening of contact limitations, travel restrictions or temporary business closures could have a negative impact on cash flows in 2023, particularly for hotel and retail properties. This risk, however, is assessed to be significantly lower than in previous years. Should the trend towards increased mobile working continue or even intensify, companies may decide to rent less office space. The transition to such a new way of working could exert pressure on rental prices for office properties and on the demand for office space. It can be assumed that the impact would vary depending on the market, country and property quality. On the other hand, co-working and communal working space will be increasingly sought after in a changing world of work, halting or even reversing the pre-pandemic trend of decreasing office space per employee.

For commercial property, we expect that the higher financing costs will likely impede an increase in value this year, and that market values will decline moderately on average.[1)] However, market value developments will be influenced not only by the quality and location of properties, but also increasingly by compliance with sustainability criteria (ESG).

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1) It should be noted in this context that commercial property is a highly diverse asset class that can differ significantly by market, location, amenities, degree of modernisation, and other factors. The information presented here is to be understood as an overview; individual markets, sub-markets and individual properties may very well deviate from the average.

With a view to retail properties, we expect that the structural change in shopping habits will have a weakening effect on the outlook for value-driving rental revenues, depending on location and segment. Negative real income growth and weakening consumption, for example, are likely to lead to only moderate growth in rents before macro-economic conditions improve again. However, historically low unemployment rates and ample household savings should mitigate the negative impact on retail, so that we anticipate stable market values on average in 2023. It should be noted here that the retail market had already seen valuations decline in recent years. For hotel properties, also depending on location and segment, we foresee a positive development of occupancy and revenues in the next few years driven by increasing travel activity. However, the increase in yields is initially expected to have a slightly negative impact on market values before a recovery follows in subsequent forecast years.

We have a positive outlook for student housing, where demand from international students is already recovering significantly as a result of the return to face-to-face teaching. In addition, this property type is considered to possess a certain resilience, especially in times of economic uncertainty, so we expect investor interest to remain high in this segment.

For office properties, we expect market values to decline somewhat more strongly on average in 2023, as office yields increase and rental growth is expected to slow down or remain stable. This is due to potential changes in the demand for space and the increasing impact of sustainability requirements. We expect underperformance from properties that fail to comply with corporate environmental and sustainability goals along with government climate targets.

Logistics properties continue to be assessed positively, as structural demand drivers remain in place, which should lead to rising rental income in the near future. Overall demand will continue to be supported by a shift from just-in-time to just-in-case production. Companies are undertaking this shift in an attempt to counter supply chain challenges and prevent delays, leading to greater demand for warehouse space. However, rising yields on average will likely lead to slightly declining market values in the logistics sector in 2023.

As a matter of principle, it is worth noting that estimation uncertainty – concerning the economy, markets and the impact on Aareal Bank – is currently still at a high level. Therefore, in addition to our "baseline" scenario, we have simulated further potential macro-economic scenarios.

In line with current Group planning, our baseline scenario assumes the following macro-economic parameters:

in %	2022	2023	2024	2025
"Baseline" scenario				
Gross domestic product (year-on-year change in %)				
Euro zone	3.2	-0.1	2.0	2.1
US	2.0	0.1	0.9	2.1
UK	4.4	-0.9	1.5	2.7
Unemployment (%)				
Euro zone	6.7	7.2	7.1	7.0
US	3.7	4.2	4.6	4.0
UK	3.7	4.4	4.4	4.0
Long-term interest rates (10-year government bonds) (%)				
Euro zone	2.8	2.5	2.3	2.3
US	3.7	3.1	2.8	2.8
UK	3.3	3.2	2.9	2.3
Portfolio-weighted property price development (2022 basis = 100%)	100 %	97 %	97 %	97 %

In the Structured Property Financing segment, we aim to originate new business of between € 9 billion and € 10 billion for the 2023 financial year, so that Aareal Bank Group's property financing portfolio will amount to approximately € 32 billion to € 33 billion at the end of 2023, subject to exchange rate fluctuations. To manage our portfolio and risk exposure, we also use syndications.

The forecasts are based on the assumption that the macro-economic risks and uncertainty factors described above will not materialise to a significant extent, or only in a manageable manner: otherwise, they might influence business development, for example, in terms of new business.

Banking & Digital Solutions segment

Despite the Covid-19 pandemic and the war in Ukraine, the German housing and commercial property industries are expected to continue to see solid development in 2023. The current demand pressure will see the housing market manifest itself as a landlord's market for the foreseeable future: Even with completion figures for new housing units and approval figures for building applications at a high level, the completion targets set at 400,000 units per year by the federal government are routinely not being achieved. The construction backlog thus now stands at over 800,000 housing units and will not be reduced any time soon, due to cost increases in the construction sector, a lack of available building capacity and price increases for building plots. Additional cost increases are resulting from the goal of climate neutrality, which can only be achieved through new buildings and the renovation of existing properties.

Even though the Bank's market share in the institutional housing industry is already high based on the number of residential units, we see excellent opportunities for acquiring new clients and enhancing our existing client relationships in the course of the 2023 financial year. We plan to achieve this in particular by continuing to invest in the expansion of the "Housing Industry Ecosystem", the cross-sector development of interface products, and the expansion into related ecosystems, such as companies from the utilities and waste disposal industries.

Our expectation is that, given the economy-wide rises in cost levels, companies in these sectors will have an increased interest in process optimisation measures to reduce costs. Here, we can support our clients with our solutions in automated payment transactions and with advanced digital processes.

In our view, the range of services that connect alternative digital payment solutions to existing systems – thus helping to overcome process gaps (even across industry sectors) – are particularly attractive. With the AI-supported intelligent invoicing and dunning system of our subsidiary CollectAI, acquired in 2022, we plan to support our clients in setting up digital receivables management for customers in the housing and energy industries.

Further growth is anticipated from the integrated tenant deposit guarantee product Aareal Aval and from Aareal Meter, a solution that uses mobile meter reading and subsequent data capture without disrupting traffic to provide a digital solution to a labour-intensive analogue process gap.

Against this background, we are aiming for renewed net commission income growth over the previous year (2022: € 31 million) and expect the average deposit volume from the housing industry to remain around € 13 billion, with significant net interest income as a result.

Aareon segment

Aareon will continue its growth strategy in the 2023 financial year, with the declared objective of becoming a "Rule of 40" SaaS company. This indicator is calculated as the sum of revenue growth and adjusted EBITDA margin, and is targeted to exceed 40% in order to strike a balance between growth and profitability.

Aareon's consolidated sales revenues for the 2023 financial year are expected to increase to between € 325 million and € 345 million (2022: € 308 million). The main revenue driver is recurring business with SaaS, subscription and maintenance contracts, which have been increasingly offered since 2021. Especially when using software as a service, clients benefit from the added value of a cloud solution. The continued expansion of new client business and further cross-selling of digital products to existing clients to help them grow their digital ecosystem is also contributing to revenue growth. As a result, licence business will continue to decline in 2023, as the trend towards SaaS solutions will continue. Organic growth will be complemented by inorganic growth through mergers & acquisitions in line with the corporate strategy. On the other hand, as part of our sharper focus on our core business, the subsidiary phi-Consulting GmbH, which specialises in consulting for the utilities industry, was sold in the first quarter of 2023, based on the contract signed in December, which is one reason why Professional Service revenues will increase only slightly compared to 2022. Due to strategic cost optimisation measures, costs are expected to increase only slightly in 2023. Adjusted EBITDA[1] is expected to be significantly higher than in the previous year, coming in at between € 90 million and € 100 million (2022: € 75 million). Adjustments will be around € 40 million higher than in the previous year (2022: € 23 million) and include M&A-related costs alongside an efficiency enhancement investment budget of around € 35 million.

Significant revenue drivers in the ERP business are the products Wodis Yuneo in Germany, Austria and Switzerland (the 'DACH' region), Tobias 365 in the Netherlands, Arthur Online in the UK and Momentum in Sweden. The roll-out will continue for the new product generations Wodis Yuneo and Tobias 365. Additional new customer acquisitions and an expansion of the product range will contribute to the growth of Arthur Online. Swedish Momentum, acquired in June 2022, will be consolidated for the full twelve months in the 2023 financial statements. The trend towards SaaS solutions will also continue in the Digital Solutions segment and the licence business will consequently decline. Revenue from CRM (Customer Relationship Management) products will increase, due to demand for the solutions of the acquired companies Cubic Eyes B.V., OSRE B.V. and wohnungshelden GmbH, as well as further penetration within the client base. Significant increases are also expected in SRM (Supplier Relationship Management) products with existing clients. The revenues of the remaining digital solutions will be on par with the previous year.

Strategic focus

Aareal Bank Group's strategy focuses on sustainable business success. Environmental, social and governance aspects are therefore key elements of its business strategy. In 2022, we substantiated these aspects with ESG targets. The medium-term strategic development is therefore being pursued under the guiding principle of "Aareal Next Level". The general strategic orientation will continue – with international commercial property financing on the one hand, and consulting services and digital solutions for the institutional housing sector in Europe and related industries on the other.

Based on the "Aareal Next Level" strategy, individual business activities will be developed further, in a targeted manner, in order to sharpen their own independent profiles, accelerate the Group's growth overall, and create value for shareholders and other stakeholders. Specifically, the Bank wants to continue exploiting opportunities for profitable growth.

The Structured Property Financing segment continues to focus on the controlled, risk-conscious expansion of its portfolio volume within its target range, considering ESG criteria and taking advantage of its flexible approach with regard to countries, property types and financing structures. We will continue to use syndications as one of the tools for active portfolio management. In addition, we intend to actively reduce non-performing loans (NPL) and sustainably lower the NPL ratio.

Within the Banking & Digital Solutions segment, Aareal Bank aims to expand its equity-light business in particular, and thus increase net commission income. This will be achieved principally by expanding its product offering, leveraging its USPs in payments and digital solutions, and through further strategic partnerships. The Bank aims to maintain a high average deposit volume from the housing industry.

Aareon's position as a provider of ERP Software and digital solutions for the European property industry and its partners is set to be expanded further – with the clear objective of developing Aareon into a "Rule of 40" company. Together with its partner Advent International, the Group aims to maintain the pace of Aareon's growth and further increase its profitability, through organic growth initiatives as part of the Value Creation Programme, as well as initiatives to enhance the existing product portfolio's efficiency and improve the cost/income mix for Aareon Group. An institutionalised M&A pipeline and a credit facility are in place to support inorganic growth.

Besides the growth initiatives for the three segments, Aareal Bank Group will use additional levers to sustainably raise profitability, including an optimisation of the funding mix and the capital structure. In addition, numerous measures are being implemented to enhance the efficiency of the organisational structure, processes and infrastructure.

[1] Earnings before interest, taxes, depreciation and amortisation before new products, Value Creation Programme (VCP), ventures, M&A activities and non-recurring effects

Atlantic BidCo GmbH (the “Bidder”), a bidder company indirectly held by funds managed and advised by Advent International Corporation and Centerbridge Partners as well as CPP Investment Board Europe S.à.r.l., a wholly-owned subsidiary of the Canada Pension Plan Investment Board, and further minority shareholders, announced on 30 May 2022 that it had secured 74.62 % of Aareal Bank shares after the end of the acceptance period, thus exceeding the minimum acceptance level of 60 % set out in the course of the voluntary public takeover offer. On 16 June 2022, Atlantic BidCo GmbH announced that it had secured a total of 83.8 % of Aareal Bank shares after the end of the statutory additional acceptance period. Closing of the takeover is subject to regulatory approvals and is expected to take place in spring 2023.

Future cooperation will be based on the Investment Agreement concluded between Aareal Bank and Atlantic BidCo GmbH in conjunction with the transaction. In the Investment Agreement, the Bidder commits to supporting Aareal Bank Group’s strategic ambitions to strengthen its position as a leading international provider of property financings, as well as software, digital solutions and payments services – based on the “Aareal Next Level” strategy – and to expedite growth in all of the Group’s segments. This would be facilitated by the Bidder’s extensive experience in the financial services, software and payments sectors, and by increasingly retaining profits in the next few years. Based on a business plan supported by the Bidder, this would generate significant additional funds for attractive growth opportunities in all three segments.

Group targets

Taking into account additional investments in the swift reduction of non-performing loans (NPLs) of around € 60 million and in Aareon of around € 35 million, Aareal Bank Group expects consolidated operating profit for the 2023 financial year to be between € 240 million and € 280 million (2022: € 239 million). On this basis, earnings per share (EpS) are expected to amount to between € 2.40 and € 2.80 (2022: € 2.32), while RoE after taxes should range between 5 % and 6.5 % (2022: 5.0 %). Excluding these one-off effects of just under € 100 million, operating profit is thus likely to be up to € 350 million, which was originally targeted for 2024. Yet the environment remains challenging: The impact of the war in Ukraine and the associated geopolitical and macroeconomic uncertainty remain very difficult to estimate.

Aareal Bank Group expects income to continue to rise significantly vis-à-vis the previous year. Net interest income should pick up further due to the targeted expansion of the credit portfolio, a better funding mix and positive effects of higher market interest rates on the deposit-taking business, reaching between € 730 million and € 770 million (2022: € 702 million). Net commission income is also set to rise, thanks in particular to Aareon’s growth, to between € 315 million and € 335 million (2022: € 277 million).

Loss allowance, including additional planned allowance of around € 60 million for a swift NPL reduction, is expected to be in the range of € 170 to € 210 million (2022: € 192 million). This also includes credit risk induced measurement losses of defaulted property loans, which are reflected in the net gain or loss from financial instruments (fvpl). The impact of the war in Ukraine, both in relation to our limited exposure in Russia as well as to the economic consequences of the imposed sanctions and escalated geopolitical tensions, is currently very difficult to assess.

Administrative expenses are expected to be above the previous year’s level, in a range between € 590 million and € 630 million (2022: € 571 million), due to growth and Aareon’s efficiency enhancement investment budget of around € 35 million.

In the Structured Property Financing segment, we plan to achieve a portfolio size of around € 32 billion to € 33 billion by the end of the year, market conditions permitting and subject to exchange rate fluctuations. Aareal Bank plans new business volume of € 9 billion to € 10 billion on this basis.

For the Banking & Digital Solutions segment, Aareal Bank projects growth in net commission income and an average deposit volume from the housing industry of around € 13 billion.

Aareon’s sales revenues are expected to increase to between € 325 million and € 345 million in the current year (2022: € 308 million). Adjusted EBITDA[1] is also likely to see a marked increase to between € 90 million and € 100 million (2022: € 75 million).

[1] Earnings before interest, taxes, depreciation and amortisation before new products, Value Creation Programme (VCP), ventures, M&A activities and non-recurring effects

With regard to capitalisation, Aareal Bank continues to expect a solid CET1 ratio (Basel IV phase-in) of markedly more than the standardised capital requirement of 15%, despite the planned portfolio growth and subject to further regulatory changes.

Takeover Disclosures in Accordance with Section 315a (1) of the German Commercial Code (HGB)

Composition of subscribed capital, and rights and obligations attached to shares

The composition of Aareal Bank AG's subscribed capital is shown in the Note "Equity" to the consolidated financial statements. Each share casts one vote at a General Meeting. There are no shares with special rights granting supervisory powers to any shareholder or shareholder group. The Company currently does not hold any treasury shares, which would not be entitled to vote.

Restrictions affecting voting rights or the transfer of shares

The transfer and exercise of voting rights is governed exclusively by legal restrictions. Voting rights are not limited to a certain number of shares, or of votes. All shareholders who have registered to attend a General Meeting in good time, and who have provided the Company with evidence of their shareholding and their right to vote, are entitled to attend the General Meeting, and to exercise their voting rights from all shares held and so registered. The exercise of voting rights from the shares concerned is precluded by law in the cases where section 136 of the German Public Limited Companies Act (Aktiengesetz – "AktG") applies. Where the Company holds treasury shares, section 71b of the AktG prohibits the exercise of rights vested in such shares. We are not aware of any other restrictions affecting voting rights or the transfer of shares.

Shareholdings exceeding 10% of voting rights

Details regarding any shareholdings exceeding 10% of voting rights are provided in the Note "Disclosures pursuant to section 160 (1) no. 8 of the AktG".

Shares with special rights granting the holder supervisory powers

Aareal Bank AG's Memorandum and Articles of Association do not grant any shareholder the right to nominate members to the Supervisory Board, nor are there any other shares with special rights granting the holder supervisory powers.

Type of control of voting rights regarding shares held by employees with their rights of control not being directly exercised

There are no Aareal Bank AG shares held by employees where the rights of control cannot be directly exercised.

Statutory provisions, and provisions in the Memorandum and Articles of Association regarding the appointment and removal of members of the Management Board, and regarding amendments to the Memorandum and Articles of Association

The appointment and removal of members of the Management Board of Aareal Bank AG is carried out in accordance with sections 84 and 85 of the AktG and Article 7 of the Memorandum and Articles of Association, according to which the Management Board must have a minimum of two members. The Supervisory Board shall appoint the Members of the Management Board and determine their number. The Supervisory Board may appoint deputy members, and may appoint one member of the Management Board to be the Chairman of the Management Board. The members of the Management Board are appointed for a maximum term of five years. This term of office may be renewed or extended for a maximum of five years in each case.

Pursuant to section 179 of the AktG, the Memorandum and Articles of Association may be amended by way of resolution passed by the General Meeting. Resolutions of the General Meeting regarding amendments to the Memorandum and Articles of Association are passed by a simple majority of the votes cast, or – to the extent permitted by law – by the majority of the issued share capital present at the Meeting. In accordance with section 181 (3) of the AktG, such amendments become effective upon their entry in the Commercial Register. In the event of a capital change, the Supervisory Board is authorised to modify the wording of the Articles of Association in line with the amount of the capital change (Article 5 (7) of the Memorandum and Articles of Association).

Authorisation of the Management Board to issue or repurchase shares

Authorised capital

For details regarding authorised capital, please refer to the "Equity" section in the Notes.

Conditional capital

For details regarding conditional capital, please refer to the "Equity" section in the Notes.

Authorisation to purchase treasury shares

For details regarding the authorisation to purchase and sell treasury shares, please refer to the "Equity" section in the Notes.

Material agreements which are subject to change of control clauses triggered in the event of a takeover offer

There are no material agreements which are subject to change of control clauses triggered in the event of a takeover offer. Any public offers to acquire the Company's shares are governed exclusively by the law (including the provisions of the German Securities Acquisition and Takeover Act), and the Memorandum and Articles of Association.

Compensation agreements entered into with members of the Management Board or employees in the event of a takeover offer

For details regarding compensation agreements entered into with members of the Management Board or employees in the event of a takeover bid, please refer to the Remuneration Report.

Separate Combined Non-financial Report

The Separate Combined Non-financial Report pursuant to sections 289b (3) and 315b (3) of the HGB has been published on the Company's website, on www.aareal-bank.com/en/responsibility/reporting-on-our-progress/.

Corporate Governance Statement

Since Aareal Bank AG is the only listed Group entity, and also the Group's parent undertaking, only one Corporate Governance Statement will be issued.

The full Corporate Governance Statement pursuant to sections 289f and 315d of the HGB is publicly available on the Company's website (www.aareal-bank.com/en/about-us/corporate-governance/), and in the "Transparency" section of the Group Annual Report. It contains a reference to the Remuneration Report, which is also published on the website.

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Consolidated Financial Statements

Statement of Comprehensive Income

Income Statement

€ mn	Note	1 Jan – 31 Dec 2022	1 Jan – 31 Dec 2021
Interest income from financial instruments (ac and fvoci)		1,168	769
Interest income from financial instruments (fvpl)		30	20
Market-driven modification gains		2	1
Interest expenses for financial instruments (ac and fvoci)		196	64
Interest expenses for financial instruments (fvpl)		283	126
Market-driven modification losses		19	3
Net interest income	31	**702**	**597**
Loss allowance excluding credit-driven net modification gain or loss		189	131
Credit-driven net modification gain or loss		3	2
Loss allowance	32	**192**	**133**
Commission income		337	297
Commission expenses		60	52
Net commission income	33	**277**	**245**
Net gain or loss on the derecognition of financial assets (ac)		13	20
Net gain or loss on the derecognition of financial liabilities (ac)		-21	3
Net gain or loss on the derecognition of financial assets (fvoci)		9	0
Net derecognition gain or loss	34	**1**	**23**
Net gain or loss from financial instruments (fvpl)	35	26	-30
Net gain or loss from hedge accounting	36	-2	-5
Net gain or loss from investments accounted for using the equity method	37	-2	-2
Administrative expenses	38	571	528
Net other operating income/expenses	39	0	-12
Operating profit		**239**	**155**
Income taxes	40	86	87
Consolidated net income		**153**	**68**
Consolidated net income attributable to non-controlling interests		0	1
Consolidated net income attributable to shareholders of Aareal Bank AG		153	67
Earnings per share (EpS)			
Consolidated net income attributable to shareholders of Aareal Bank AG[1]		153	67
of which: allocated to ordinary shareholders		138	53
of which: allocated to AT1 investors		15	14
Earnings per ordinary share (€)	41	2.32	0.89
Earnings per AT1 unit (€)	41	0.15	0.14

[1] The allocation of earnings is based on the assumption that net interest payable on the AT1 bond is recognised on an accrual basis.

Reconciliation from Consolidated Net Income to Total Comprehensive Income

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Consolidated net income	**153**	**68**
Items that will not be reclassified subsequently to profit or loss		
Changes in the reserve from remeasurements of defined benefit plans	**61**	**34**
Remeasurements of defined benefit plans	89	49
Taxes on remeasurements of defined benefit plans	-28	-15
Changes in the reserve from the measurement of equity instruments (fvoci)	**-1**	**1**
Gains and losses from equity instruments (fvoci)	-1	1
Reclassifications to retained earnings from equity instruments (fvoci)	–	–
Taxes on gains and losses from equity instruments (fvoci)	0	0
Items that are reclassified subsequently to profit or loss		
Changes in the reserve from the measurement of debt instruments (fvoci)	**-12**	**4**
Gains and losses from debt instruments (fvoci)	-8	6
Reclassifications to the income statement from debt instruments (fvoci)	-9	0
Taxes on gains and losses from debt instruments (fvoci)	5	-2
Changes in the reserve from foreign currency basis spreads	**15**	**3**
Gains and losses from foreign currency basis spreads	22	4
Reclassifications to the income statement from foreign currency basis spreads	–	–
Taxes on gains and losses from foreign currency basis spreads	-7	-1
Changes in currency translation reserves	**-10**	**14**
Gains and losses from translating foreign operations' financial statements	-7	7
Reclassifications to the income statement from translating foreign operations’ financial statements	-5	–
Taxes on gains and losses arising from translating foreign operations’ financial statements	2	7
Other comprehensive income	**53**	**56**
Total comprehensive income	**206**	**124**
Total comprehensive income attributable to non-controlling interests	-2	3
Total comprehensive income attributable to shareholders of Aareal Bank AG	208	121

Statement of Financial Position

€ mn	Note	31 Dec 2022	31 Dec 2021
Assets			
Financial assets (ac)	42	**40,490**	**42,345**
Cash funds (ac)	10	5,424	6,942
Loan receivables (ac)	11	29,948	29,434
Money market and capital market receivables (ac)	12	5,017	5,884
Receivables from other transactions (ac)	14	101	85
Loss allowance (ac)	43	-490	-492
Financial assets (fvoci)	44	**3,552**	**3,753**
Money market and capital market receivables (fvoci)	12	3,550	3,749
Equity instruments (fvoci)	13	2	4
Financial assets (fvpl)	45	**2,258**	**1,734**
Loan receivables (fvpl)	11	427	598
Money market and capital market receivables (fvpl)	12	5	4
Positive market value of designated hedging derivatives (fvpl)	15	1,104	900
Positive market value of other derivatives (fvpl)	16	722	232
Non-current assets held for sale	46	7	–
Investments accounted for using the equity method	17, 47	14	19
Intangible assets	18, 48	566	394
Property and equipment	19, 49	235	278
Income tax assets	20, 50	46	66
Deferred tax assets	21, 51	179	168
Other assets	22, 52	474	463
Total		**47,331**	**48,728**
Equity and liabilities			
Financial liabilities (ac)	53	**40,022**	**43,017**
Money market and capital market liabilities (ac)	23	26,425	30,597
Deposits from the housing industry (ac)	24	13,115	11,717
Liabilities from other transactions (ac)	25	96	94
Subordinated liabilities (ac)	26	386	609
Financial liabilities (fvpl)	54	**3,514**	**1,882**
Negative market value of designated hedging derivatives (fvpl)	15	2,183	971
Negative market value of other derivatives (fvpl)	16	1,331	911
Non-current liabilities held for sale	55	1	–
Provisions	27, 56	292	558
Income tax liabilities	57	76	17
Deferred tax liabilities	21, 58	57	56
Other liabilities	28, 59	111	137
Equity	29, 60	**3,258**	**3,061**
Subscribed capital		180	180
Capital reserves		721	721
Retained earnings		2,076	1,937
AT1 bond		300	300
Other reserves		-88	-143
Non-controlling interests		69	66
Total		**47,331**	**48,728**

Statement of Changes in Equity

€ mn	Subscribed capital	Capital reserves	Retained earnings	AT1 bond	Other reserves: Reserve from remeasurements of defined benefit plans	Other reserves: Reserve from the measurement of equity instruments (fvoci)	Other reserves: Reserve from the measurement of debt instruments (fvoci)	Other reserves: Reserve from changes in the value of foreign currency basis spreads	Other reserves: Currency translation reserve	Total	Non-controlling interests	Equity
Equity as at 1 January 2022	**180**	**721**	**1,937**	**300**	**-133**	**-3**	**16**	**-23**	**0**	**2,995**	**66**	**3,061**
Total comprehensive income for the period	–	–	153	–	60	-1	-12	15	-7	**208**	-2	**206**
Consolidated net income	–	–	153	–	–	–	–	–	–	**153**	0	**153**
Other comprehensive income	–	–	–	–	60	-1	-12	15	-7	**55**	-2	**53**
Payments to non-controlling interests	–	–	–	–	–	–	–	–	–	**–**	-2	**-2**
Dividends	–	–	–	–	–	–	–	–	–	**–**	–	**–**
AT1 coupon	–	–	-14	–	–	–	–	–	–	**-14**	–	**-14**
Changes in ownership interests in subsidiaries	–	–	–	–	–	–	–	–	–	**–**	7	**7**
Other changes	–	–	–	–	–	–	–	–	–	**–**	–	**–**
Equity as at 31 December 2022	**180**	**721**	**2,076**	**300**	**-73**	**-4**	**4**	**-8**	**-7**	**3,189**	**69**	**3,258**

€ mn	Subscribed capital	Capital reserves	Retained earnings	AT1 bond	Other reserves: Reserve from remeasurements of defined benefit plans	Other reserves: Reserve from the measurement of equity instruments (fvoci)	Other reserves: Reserve from the measurement of debt instruments (fvoci)	Other reserves: Reserve from changes in the value of foreign currency basis spreads	Other reserves: Currency translation reserve	Total	Non-controlling interests	Equity
Equity as at 1 January 2021	**180**	**721**	**1,902**	**300**	**-166**	**-4**	**12**	**-26**	**-13**	**2,906**	**61**	**2,967**
Total comprehensive income for the period	–	–	67	–	33	1	4	3	13	**121**	3	**124**
Consolidated net income	–	–	67	–	–	–	–	–	–	**67**	1	**68**
Other comprehensive income	–	–	–	–	33	1	4	3	13	**54**	2	**56**
Payments to non-controlling interests	–	–	–	–	–	–	–	–	–	**–**	-2	**-2**
Dividends	–	–	-24	–	–	–	–	–	–	**-24**	–	**-24**
AT1 coupon	–	–	-14	–	–	–	–	–	–	**-14**	–	**-14**
Changes in ownership interests in subsidiaries	–	–	7	–	–	–	–	–	–	**7**	3	**10**
Other changes	–	–	-1	–	–	–	–	–	–	**-1**	1	**0**
Equity as at 31 December 2021	**180**	**721**	**1,937**	**300**	**-133**	**-3**	**16**	**-23**	**0**	**2,995**	**66**	**3,061**

Statement of Cash Flows

€ mn	Cash flow 1 Jan-31 Dec 2022	Cash flow 1 Jan-31 Dec 2021
Consolidated net income	**153**	**68**
Additions to and reversals of loss allowances	193	135
Amortisation, depreciation, impairment and write-ups of non-current assets	59	48
Other non-cash changes	132	146
Gains/losses on the disposal of non-current assets	1	-1
Other adjustments	-743	-441
Adjusted consolidated net income	**-205**	**-45**
Changes in financial assets (ac) (excluding cash funds)	416	-2,793
Changes in financial assets (fvoci)	-212	-187
Changes in financial assets (fvpl)	-950	1,258
Changes in other assets	-24	8
Changes in financial liabilities (ac) (excluding subordinated capital)	-1,814	4,055
Changes in financial liabilities (fvpl)	1,083	-29
Changes in provisions	-249	-60
Changes in other liabilities	-43	-22
Income taxes paid/income tax refunds	-132	-93
Interest received	1,279	740
Interest paid	-409	-206
Cash flow from operating activities	**-1,260**	**2,626**
Proceeds from the disposal of equity instruments and investments accounted for using the equity method	4	4
Payments for the acquisition of equity instruments and investments accounted for using the equity method	–	-10
Proceeds from the disposal of property and equipment and intangible assets	1	5
Payments for the acquisition of property and equipment and intangible assets	-34	-39
Effect of changes in reporting entity structure	-5	0
Cash flow from investing activities	**-34**	**-40**
Dividends paid and AT1 coupon payments	-14	-38
Changes in subordinated liabilities	-215	-348
Changes due to other financing activities	5	-2
Cash flow from financing activities	**-224**	**-388**
Cash and cash equivalents as at 1 January	**6,942**	**4,744**
Cash flow from operating activities	-1,260	2,626
Cash flow from investing activities	-34	-40
Cash flow from financing activities	-224	-388
Cash and cash equivalents as at 31 December	**5,424**	**6,942**

Notes

Basis of Accounting

Aareal Bank AG is a public limited company incorporated under German law, with its registered office in Paulinenstrasse 15, 65189 Wiesbaden, Germany. It is the parent company of an international property finance and services group, and registered under no. HRB 13 184 in the Commercial Register at the Wiesbaden local court (Germany).

As a listed public limited company, Aareal Bank AG has prepared its consolidated financial statements for the financial year ended on 31 December 2022 in accordance with International Financial Reporting Standards (IFRSs) applicable within the European Union (EU) as at the reporting date, in connection with the provisions pursuant to section 315e of the German Commercial Code (Handelsgesetzbuch – "HGB"). The reporting currency is the euro (€). In addition, the consolidated financial statements were prepared using the European Single Electronic Format pursuant to Commission Delegated Regulation (EU) No. 2019/815 as amended (i.e. in the XHTML format) and were complemented with tags based on Inline XBRL technology.

The Management Board approved the consolidated financial statements for publication on 6 March 2023; they will be published in the German Federal Gazette.

This report contains rounded numbers, which may result in slight differences when aggregating figures and calculating percentages.

Accounting Policies

(1) Accounting standards

Recognition and measurement within Aareal Bank Group are based on accounting policies applied consistently throughout the Group. The consolidated financial statements are prepared on a going concern basis.

We apply accounting policies – and the presentation of financial statements – consistently, in order to ensure the comparability of financial statements over time.

Information is presented in accordance with the principle of materiality. Minor differences may occur regarding the figures stated, due to rounding.

The Bank observes the general prohibition of setting off assets against liabilities. To the extent that the criteria of IAS 12.74 are met, deferred tax assets and deferred tax liabilities are offset. If the requirements set out in IAS 32.42 are met, financial assets and liabilities are reported on a net basis.

Income and expenses are recognised on an accrual basis and recorded in the income statement in the period to which they relate. Interest income and expenses are recognised using the effective interest method. In the case of impaired receivables, interest income and expenses are recognised only on the basis of the net carrying amount. Interest from derivatives designated for hedge accounting and economic hedging relationships is included in net interest income. Interest from derivative hedging instruments is shown under interest from financial instruments (ac and fvoci), while interest from economic hedging relationships is reported under interest from financial instruments (fvpl). We provide specific information on negative interest from financial assets or positive interest from financial liabilities in the Notes, under net interest income. These assets and liabilities are deposits as well as money market and securities repurchase transactions. The interest benefit from the ECB's Targeted Longer-Term Refinancing Operations (TLTRO) is recognised if there is reasonable certainty that it will be granted.

Dividend income is recognised when there is a corresponding legal title.

Commission income and expenses include revenue from the provision of goods or services in the ordinary course of business. This mainly refers to IT consulting projects, trainings, licence and maintenance agreements and hosting or outsourcing services.

The presentation of the financial position and the financial performance in the consolidated financial statements depends on the recognition and measurement methods underlying the preparation of the financial statements, as well as on estimates and assumptions made by the management in relation to uncertain future events. Any assessments required for recognition and measurement are prepared in line with the relevant accounting standards. Estimates and assumptions are based on historical experience and other factors, such as planning and current expectations and forecasts with respect to the occurrence of future events. The estimates and assessments themselves as well as the underlying assessment factors and estimation techniques are reviewed regularly and compared with actual outcome. In our view, the parameters used are relevant and reasonable.

The most significant estimation uncertainties and judgements of the management primarily refer to the calculation of provisions, loss allowances and provisions in the lending business, and the measurement of goodwill, property and tax assets and liabilities. We refer to the item-specific disclosures in this section for information related to the estimates and assumptions actually made within the context of recognition and measurement.

An asset is recognised in the statement of financial position when it is probable that an associated future economic benefit will flow to the Company and the asset can be measured reliably.

A liability is recognised if it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and when the settlement amount of the liability can be measured with sufficient reliability.

(2) Changes in accounting policies

The following financial reporting standards (IASs/IFRSs) were applied for the first time in the reporting period:

- **IFRS 3 Reference to the Conceptual Framework**
  The amendments result in an update of IFRS 3 pursuant to which the standard now refers to the Conceptual Framework 2018 and no longer to the Conceptual Framework 1989. Moreover, two additions were made. In terms of the identification of liabilities that an acquirer has assumed in a business combination, the acquirer has to apply the provisions set out in IAS 37 or IFRIC 21 (instead of those included in the Conceptual Framework) for transactions and similar events that are within the scope of IAS 37 or IFRIC 21. Moreover, the explicit statement that contingent assets acquired in a business combination shall not be recognised was included.

- **IAS 37 Onerous Contracts–Costs of Fulfilling a Contract**
  The amendments determine that the “cost of fulfilling a contract” comprises the “costs that relate directly to a contract”. Such costs may either be incremental costs of fulfilling that contract (for example, direct labour and materials) or an allocation of other costs that relate directly to fulfilling contracts (for example, an allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling that contract).

- **IAS 16 Property, Plant and Equipment: Proceeds before Intended Use**
  As a result of the amendments, it is now prohibited to deduct income from the cost of an item of property, plant and equipment that results from selling any goods produced while such item of property, plant and equipment is being brought to the location and condition necessary for it to be capable of operating in the manner intended by the management. Instead, an entity recognises the proceeds from such disposals and the costs for the production of these goods under operating profit. As before, costs for test runs carried out to test whether the item of property, plant and equipment is working properly are an example for directly attributable costs.

- **Annual Improvements 2018–2020**
  Improvements to IFRS 1, IFRS 9, IFRS 16 and IAS 41

The new and revised standards and interpretations did not have material consequences for the consolidated financial statements of Aareal Bank Group.

Until 31 December 2022, the following financial reporting standards (IASs/IFRSs) and interpretations (IFRICs), which are required to be applied in future financial years, had been published by the International Accounting Standards Board (IASB) and endorsed by the EU Commission:

New International Financial Reporting Standards/Interpretations		Issued	Endorsed	Effective date
IFRS 17	Insurance Contracts	May 2017/June 2020/ December 2021	November 2021/ September 2022	Financial years beginning on or after 1 January 2023

Revised International Financial Reporting Standards		Issued	Endorsed	Effective date
IAS 1	Disclosure of Accounting Policies	February 2021	March 2022	Financial years beginning on or after 1 January 2023
IAS 8	Definition of Accounting Estimates	February 2021	March 2022	Financial years beginning on or after 1 January 2023
IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	May 2021	August 2022	Financial years beginning on or after 1 January 2023
IAS 1	Classification of Liabilities as Current or Non-current	January 2020		Financial years beginning on or after 1 January 2024
IFRS 16	Lease Liability in a Sale and Leaseback	September 2022		Financial years beginning on or after 1 January 2024

- **IFRS 17 Insurance Contracts**
  The standard governs the accounting for insurance contracts. IFRS 17 replaces the previously applicable interim standard IFRS 4. The new standard applies to insurance contracts, reinsurance contracts as well as investment contracts with discretionary participation features. In accordance with IFRS 17, insurance contracts are generally measured using the general measurement model. Under this model, the fulfilment cash flows and the contractual service margin are determined upon initial recognition for a group of insurance contracts. Depending on what any changes in underlying parameters refer to, subsequent measurement affects either insurance revenue or insurance finance income or expenses, or the contractual service margin may have to be adjusted which will affect the income statement only in later periods.

- **IAS 1 Disclosure of Accounting Policies**
  The amendments to IAS 1 are intended to support preparers in their decision which accounting policies are required to be disclosed in the financial statements. Entities are now required to disclose material accounting policy information rather than their significant accounting policies.

- **IAS 1 Classification of Liabilities as Current or Non-current**
  The amendments to IAS 1 are meant to clarify the classification of liabilities as current or non-current. In future, only rights that exist as at the end of the reporting period shall be relevant for the classification of a liability. In addition, further guidance as to the interpretation of the criterion "right to defer settlement for at least twelve months" as well as explanations regarding settlement characteristics were included.

- **IAS 8 Definition of Accounting Estimates**
  The amendments to IAS 8 are intended to provide support to make a distinction between accounting policies and accounting estimates. In this context, the definition of a change in accounting estimates is replaced by a definition of accounting estimates. According to the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty". Entities develop accounting estimates when the accounting policies require items in financial statements to

be measured in a way that involves measurement uncertainty. Changes in accounting estimates that result from new information or new developments do not represent a correction of an error.

- **IAS 12 Deferred Tax related to Assets and Liabilities arising from a Single Transaction**
  The amendment to IAS 12 narrows the scope of the initial recognition exemption pursuant to which no deferred tax assets or liabilities are recognised upon initial recognition of an asset or a liability. If the transaction gives rise simultaneously to equal taxable and deductible temporary differences, such differences no longer fall under the scope of the exemption; accordingly, deferred tax assets and liabilities have to be recognised.

- **IFRS 16 Lease Liability in a Sale and Leaseback**
  The amendment includes guidance on subsequent measurement of leases in a sale and leaseback transaction for seller-lessees. The objective of the amendment is primarily to harmonise subsequent measurement of lease liabilities to avoid any inappropriate recognition of gains. In general, the amendment has the effect that the lease payments expected at the commencement date are to be taken into account as part of subsequent measurement of lease liabilities in a sale and leaseback transaction. In each period, the carrying amount of the lease liability is reduced by the expected payments; the difference to the actual payments is recognised through profit or loss.

Aareal Bank Group did not opt for early application of these standards in the 2022 financial year, which are required to be applied in future financial years.

Aareal Bank Group is currently reviewing the effects of the application of the new and amended financial reporting standards on the consolidated financial statements.

(3) Consolidation

Consolidation principles

The consolidated financial statements of Aareal Bank Group include all subsidiaries which are controlled directly or indirectly by Aareal Bank AG. Aareal Bank controls an investee when it has the power to direct the investee’s relevant activities, has an exposure or rights to variable returns from its involvement with the investee and has the ability to use its power over the investee to affect the amount of such returns. If control is exercised via voting rights, Aareal Bank assumes that a parent-subsidiary relationship exists if more than half of the voting rights are held directly or indirectly. In cases where voting rights are not conclusive in determining control relationships, other factors are used to assess whether Aareal Bank Group has the power over the company. For this purpose, an assessment is made of the following: purpose and design of an investee, what are the relevant activities of the company, what is the decision-making process in relation to these relevant activities and whether Aareal Bank, by virtue of its rights, currently has the ability to direct these relevant activities. In addition, we assess whether Aareal Bank Group exercises control as principal or as agent or whether a third party acts as agent for the Group. If the assessment shows that Aareal Bank has the sole power over an investee and additionally has the ability to use its power over the investee to affect the amount of the investor’s returns, the investee is included in the consolidated financial statements.

Consolidation of a subsidiary begins from the date the Group obtains significant influence (full consolidation). Subsidiaries are deconsolidated when there is no longer the ability to exercise significant influence.

Any non-controlling interests resulting from full consolidation are shown in the statement of financial position, as a separate item of equity. This also applies to a partial disposal without the loss of control over the subsidiary (sale of a non-controlling interest).

Initial consolidation of an entity in the event of an acquisition is based on the purchase method, in accordance with IFRS 3, whereby remeasured amounts must be used when recognising assets and liabilities (including any hidden reserves and hidden encumbrances) of an entity to be consolidated. This may lead to the recognition of new assets and liabilities (including contingent liabilities) that were previously not reported in the statement of financial position of the company to be consolidated. Any excess of acquisition cost over the Group’s interest in the fair value of net assets is recognised as (positive) goodwill. Any negative goodwill determined during this comparison is charged against income.

Intragroup transactions, balances and results of transactions between Group entities are eliminated. Accounting policies applied by subsidiaries were amended for the purpose of preparing consolidated financial statements to the extent required to ensure consistent accounting throughout the Group.

Joint arrangements are defined as contractual arrangements where two or more parties carry out business activities that are subject to joint control. Joint control only exists when the decisions about the relevant activities require unanimous consent of the parties sharing control. In general, a distinction is made between joint operations and joint ventures. The parties to a joint operation that have joint control have the rights to the assets, and the obligations for the liabilities, relating to the arrangement. Assets and obligations, as well as revenue and expenses are carried on a pro-rata basis. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Interests in joint ventures are measured using the equity method.

Associates are companies in which the Group has an equity interest and may exercise significant influence, without having control. Significant influence is deemed to exist when an investor holds 20%–50% of the voting rights of a company. Associates are also measured using the equity method.

In accordance with the equity method, the Group's share in the profit or loss of associates and joint ventures is recognised in the consolidated income statement from the date of acquisition and is included in the carrying amount of the equity investment, taking into account interim distributions. Further information on investments accounted for using the equity method is included in Note (47).

Associates and joint ventures are no longer accounted for using the equity method from the date when Aareal Bank loses significant influence over the company or when joint control ends.

As at the reporting date, Aareal Bank was not exposed to material limitations as regards the access to, or use of, assets of the Group and as regards the settlement of liabilities of the Group.

Reporting entity structure

As at 31 December 2022, the reporting entity structure comprised 89 companies (2021: 85), including Aareal Bank AG as well as 79 (2021: 75) subsidiaries, two joint arrangements (2021: two) as well as seven associates (2021: seven).

In the reporting period, three companies constituted the material additions to the reporting entity structure. Our range of services in the Banking & Digital Solutions segment was expanded with the acquisition of payment solutions provider Collect Artificial Intelligence GmbH ("CollectAI") from Otto Group, to include end-customer communications services as well as AI-based interactive invoicing and intelligent dunning solutions. The purchase price was € 8 million, with € 5 million payable in cash and € 3 million as a contingent purchase price due over the next four years. The fair value of assets amounted to € 6 million; it mainly comprises € 3 million in software, € 1 million related to bank balances and € 1 million in client relationships. The acquisition results in goodwill of € 5 million, including potential market value effects and synergies. The company generated overall balanced profits on sales revenues of € 0.4 million in the first quarter of 2022. The company generated € 2.1 million in profits on sales revenues of € -3 million in the period between the acquisition date (31 March 2022) and year-end.

On 20 June 2022, Aareon entered into a binding agreement on the acquisition of approximately 93 % of shares and voting rights in Momentum Software Group AB. Aareon also purchased shares on the market; it thus held around 96 % in the company's capital at the consolidation date (30 June 2022). The purchase price amounted to approximately € 163 million and was paid in cash. The fair value of assets amounted to € 24 million; it largely comprised € 11 million in software, € 7 million related to client relationships and € 1 million in brand rights. The company generated € 0 million in profits on sales revenues of € 5 million in the first half of 2022. The company has generated € 1 million in profits on sales revenues of € 5 million since the consolidation date (30 June 2022). The associated transaction costs amounted to € 4 million. The acquisition resulted in goodwill of € 141 million, including potential market value effects and synergies. With this transaction, Aareon has acquired a SaaS solution for property management and energy monitoring in the Nordic countries, thus strengthening its footprint in the market. Clients will be offered a more extensive portfolio of products in connection with Aareon's digital ecosystem.

Aareon also increased its stake in Dutch PropTech OSRE B.V. to around 51 %. OSRE offers a SaaS solution that automates the property transaction process for new rentals across all segments of the residential and commercial property markets. The goal of this partnership is to further expand Aareon's presence in the Dutch market.

There were no other material changes to the reporting entity structure.

Note (92) "List of Shareholdings" includes an overview of the Group companies.

(4) Currency translation

Individual line items in the financial statements of each Group entity are measured on the basis of the currency of the primary economic environment the respective entity operates in ("functional currency").

The consolidated financial statements are prepared in euro, being both the functional and the reporting currency.

Monetary assets and liabilities denominated in a foreign currency, unsettled cash market/spot transactions and non-monetary items measured at fair value are all translated to the functional currency on the basis of the ECB reference rate prevailing on the balance sheet date. Non-monetary items measured at amortised cost are translated using historical rates.

Currency translation adjustments on monetary assets and liabilities must be recognised in income. Depending on the relevant measurement category, currency translation adjustments on non-monetary items are either recognised directly in equity (in the currency translation reserves), or recognised in the income statement (in net gain or loss from transactions measured at fair value).

Financial statements of consolidated subsidiaries, which are presented in a currency other than the euro, are translated at the ECB reference rate prevailing at the reporting date (statement of financial position) and at (monthly) average rates (income statement). Translation differences are recognised in equity, in the currency translation reserves.

(5) Revenue recognition

Aareal Bank Group recognises revenue in all segments. Revenue or other income is recognised when the performance obligation is satisfied or the goods or products and services have been delivered to the customer, i. e. the customer has obtained control.

Revenue recognition in the banking business mainly refers to the provision of loans, the administration of syndicated loans or the provision of payment systems for the property and energy industries. Aareal Bank Group recognises revenue in the same period in which the services are provided. When contracts comprise various performance obligations, each of the performance obligations are priced separately. Mostly, fixed fees are agreed. Commissions from the lending and other banking business mainly arise over a specified period of time. The customer obtains control over the service while Aareal Bank is providing the service. The agreed transaction price is invoiced to the customer on a pro-rata basis as at the end of an agreed period (normally monthly or quarterly). The Bank recognises the invoiced amount as revenue when it is entitled to a consideration in an amount that directly corresponds to the value of the services already provided. Invoiced amounts are payable immediately in the agreed amounts. Since the service has already been provided at the time the invoice is issued, an unconditional right to consideration arises, and a receivable due from the customer is recorded.

In the Aareon segment, Aareal Bank Group generates revenue mainly from licence, maintenance, subscription, SaaS and consultancy contracts. The contracts may be offered individually, but also in combination. For example, a licence contract generally is complemented by a maintenance contract. These contracts are considered in combination from a commercial point of view. The transaction price is allocated to the performance obligation based on the price observable in the market.

Revenue from licence contracts mainly relates to the granting of rights to use software products that are operated by clients under an in-house model. In-house model means that clients use Aareon's software products on their own servers and are responsible for the software's operability. The solutions developed by Aareon are based on databases of third-party providers such as SAP®, Oracle® or Microsoft®. In most cases, Aareon acts for its own account in the distribution of such third-party licences and is subject to the implementation risk. The right of use is granted for an unlimited period in most of the cases. The software products are technical solutions that clients in the property industry use to organise their operational processes and, for example, to manage and control their housing portfolios. The performance obligation toward the client is the granting of the right to use the software products mentioned above. Revenue from licence contracts is deemed to be realised when there is an agreement signed by both parties without a right of rescission, the product has been delivered in its entirety (e.g. via licence keys), the licence fee is fixed, and payment is probable. Thus, the client obtains control over the right of use granted. The payment is made primarily after the licence agreement has been concluded or after successful implementation of the software with a credit term of up to 45 days.

Maintenance contracts are entered into when the client enters into a licence contract under the in-house model described above (i.e. the client operates the software on its own servers and is therefore also responsible for their operability). Aareon's services provided as part of maintenance work comprise the regular provision of updates as well as support services for ongoing operation of the software.

Since the financial year 2021, Aareon has also offered subscription contracts (rental software). In the DACH region, Aareon is committed to deliver material new functions to the client in very short intervals. On the other hand, the client is required to install these new functionalities and releases in a timely manner since Aareon provides its maintenance and support services only for these new functionalities and releases. In contrast to the licence contract, Aareon is also obliged to ensure the functionality of the rented software at all times. The client, in turn, is obliged to surrender the software after the termination of the rental contract without any damages.

In the case of SaaS (software-as-a-service) contracts, the software product is not operated in-house, i.e. not by the clients themselves. Instead, the client has access to Aareon's server which is used to provide the functionalities of the software. The performance obligation of Aareon comprises the provision of the access rights as well as, in line with the maintenance contract, the installation of regular updates and the provision of support services.

Revenue generated from maintenance and subscription contracts with the product Wodis Yuneo as well as SaaS services is recognised pro rata temporis over the contractual term of service provision. The contractual performance period starts with the go-live date. The clients pay their fees in advance on a monthly basis or for a specified period (not more than one year). The advance payments that refer to performance obligations that have not yet been satisfied are accrued as contract liabilities and released to revenue on a pro-rata basis as the services are provided in future. The customer obtains the benefits from the service and uses the service at the same time as it is provided.

Consulting services include, among other things, requests for customisation of their products, training services how to use the software (modules) or implementation services for migration projects. Revenue is recognised once the service has been provided. This involves the generation or enhancement of assets for the customers over which they obtain control. Revenue recognition as well as the recognition of the contract asset are based on the progress towards complete satisfaction which is measured using an input method. The stage of completion is determined based on a comparison of contract costs incurred – mainly in connection with deployed workforce/external advisers – with the total contract costs expected for the project. Customers make advance payments for the services provided by Aareon. These are offset against the related contract assets, or reported as contract liabilities if the advance payment received exceeds the contract asset.

In many cases, Aareon's contracts consist of only one performance obligation so that an allocation of the transaction price is not necessary. When several contracts are combined or several performance obligations are contained in a contract, the amounts invoiced separately correspond to the relative stand-alone selling prices. In the limited cases where the invoiced amounts do not correspond to the relative stand-alone selling prices, allocation and break-down is made for accounting purposes based on the adjusted market assessment approach.

Operating expenses are recognised in profit or loss at the time the service is used or at the time the expense is incurred. Interest income and expenses are recognised on an accrual basis.

Apart from the country-specific ERP business in the property and energy industries, Aareon offers digital solutions – sometimes on a cross-country basis – in the CRM (Customer Relationship Management), WRM (Workforce Relationship Management), SRM (Supplier Relationship Management) and BRM (Building Relationship Management) segments. Moreover, Aareon offers additional products and services such as insurance management with BauSecura and Aareon Cloud Services (Hosting). The products have been distributed since the financial year 2021 also in form of bundles, i.e. one ERP product together with several digital solutions.

Standardised contracts are concluded within Aareal Bank Group for the vast majority of contracts with customers. This does not involve costs of obtaining a contract. In addition, there are no material amounts of variable consideration for the various services. The customers are not granted significant financing components.

(6) Leases

A lease is a contract or a part of a contract that conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

In accordance with IFRS 16, a lessee has to recognise a liability for lease payments as well as an asset for the right to use the underlying asset during the lease term. The practical relief provided for by the IFRS 16 as regards short-term lease agreements and low-value leased assets is made use of. The lease liabilities include the present value of the lease payments to be made over the lease term. Lease payments may comprise:

- fixed payments less any lease incentives receivable,
- variable lease payments that depend on an index or interest rate,
- amounts expected to be payable under residual value guarantees,
- the exercise price of a purchase option if the exercise of the option is reasonably certain, and
- payments of penalties for terminating the lease if terminating the lease is reasonably certain.

To determine the present value, the lease payments are discounted using the interest rate implicit in the lease. If such rate cannot be determined, discounting is based on Aareal Bank Group's incremental borrowing rate for the corresponding maturity band and the corresponding currency. The lease term is determined as the non-cancellable period of a lease, taking into account both extension options and termination options if it is reasonably certain that such options are exercised.

The right-of-use asset is measured upon initial measurement at cost which comprises the following amounts:

- the amount of the lease liability,
- any lease payments made to the lessor at or before the commencement date, less any lease incentives received,
- any initial direct costs, and
- asset retirement obligations.

These items are re-measured at amortised cost. The right-of-use assets are depreciated on a straight-line basis over the lease term.

Aareal Bank Group does not apply the IFRS 16 rules to leases where the Bank acts as the lessee involving intangible assets. If contracts include both lease components and non-lease components, the practical expedient as provided for by the standard not to separate these components is made use of.

Aareal Bank Group also acts as lessor, in which case a distinction has to be made between operating and finance leases. The basis for this classification is the extent to which the risks and rewards incidental to ownership of an underlying asset are attributable to either the lessor or the lessee. If a substantial portion of the risks and rewards remain with the lessor, the lease is classified as an operating lease. Where substantially all risks and rewards are transferred to the lessee, the lease is classified as a finance lease.

The major rental contracts of Aareal Bank Group as lessor are operating leases and mainly refer to let property. They are reported in the statement of financial position under other assets. Lease contracts are entered into individually and include various terms and conditions.

In the case of operating leases, the leased asset continues to be recognised as an asset at amortised cost. The lease payments received are reported in the income statement in net other operating income/expenses.

In the case of finance leases, Aareal Bank Group derecognises the carrying amount of the leased asset as at the commencement date and recognises a receivable at an amount equal to the net investment in the lease. Any gains or losses on disposal are recognised in the income statement.

For subsequent measurement, interest income from the lease receivable is recognised and the net investment in the lease is reduced by the lease payments received. Any impairment resulting from these lease receivables are included in the loss allowance in accordance with IFRS 9.

(7) Consolidated statement of cash flows

Aareal Bank Group's statement of cash flows records cash flows pertaining to the areas of operating activities, investing activities and financing activities for the period under review. The starting point of the consolidated statement of cash flows is the amount of cash and cash equivalents, consisting of cash on hand, balances with central banks as well as public-sector debt instruments and bills of exchange eligible for refinancing at central banks.

The definition of the term "operating activities" is consistent with the composition of the operating profit in the statement of comprehensive income. Cash flows from investing activities include proceeds from and payments for property and equipment, intangible assets, equity instruments and investments. Cash flows from financing activities include cash flows from transactions with providers of equity and subordinated capital.

(8) Determination of fair value

The determination of fair value is governed by IFRS 13 and applies to both financial instruments and non-financial assets or liabilities. In accordance with IFRS 13.9, the fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction under current market conditions at the measurement date. The determination of the fair value is based on the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. Another factor to be taken into account is whether Aareal Bank can enter into a transaction for the relevant asset or liability at the price in that market at the measurement date. The principal market is the market with the greatest volume and the highest level of activity for the asset or liability to which Aareal Bank has access. The most advantageous market is the market that maximises the amount that would be received to sell the asset, or minimises the amount that would be paid to transfer the liability.

Responsibility for the measurement of financial instruments lies with the Risk Controlling division and is made as part of the risk management process. Any anomalies and changes as regards measurement are analysed and checked on a continuous basis. The measurement methodologies are validated on a regular basis by cross-divisional teams.

Fair value hierarchy

In accordance with IFRS 13.72 et seqq., the fair value determination is based on the fair value hierarchy pursuant to which the inputs used are classified into various hierarchy levels on the basis of their respective market proximity and objectivity. The fair value of assets and liabilities is allocated to Level 1 of the fair value hierarchy if it is determined on the basis of unadjusted qualifying prices in active markets for identical assets or liabilities. Fair values determined using inputs other than qualifying prices included within Level 1 that are observable for the financial instrument, either directly or indirectly, are included in Level 2 of the fair value hierarchy. Fair values determined using valuation techniques where one or more material inputs are not based on observable market data are assigned to Level 3 of the fair value hierarchy. The estimation uncertainties as regards fair value measurement increase the higher the level is. The procedure is set out in a corresponding working instruction ("Fair Value Measurement in accordance with IFRS 13").

To determine the reclassification of a financial instrument, the level at the beginning of the reporting period is compared with the level at the end of the reporting period, and any changes are disclosed.

Measurement methods

The property and public-sector loans included in loan receivables are measured using the discounted cash flow method for the purpose of the determination of fair value. Discounting of future cash flows of a transaction is based on transaction-specific risk-adjusted interest rates. These are derived on the basis of a virtually risk-free market interest rate for each currency depending on the relevant term, taking into account add-ons for risks specific to the counterparty as well as credit costs based on the assumption that a regular-way transaction existed when the transaction was entered into. In the case of loans subject to fixed interest rates, the contractually agreed payments are used as future cash flows. The future cash flows for floating-rate loans are derived using the future forward interest rates, taking into account the relevant spread for customer-specific terms and conditions. In the case of defaulted loans, future cash flows are reduced by the expected losses. Debt securities and promissory note loans for which no current market price is available in an active market are measured through an analysis of future payments using the fully-capitalised earnings value approach, where the inputs are based on observable market data to the extent possible. These approaches include the discounted cash flow (DCF) method which is used to determine the present value of contractual cash flows until the expected end of the term. The present value is determined based on the benchmark curve applicable for the relevant market, taking into account mark-ups based on credit quality and liquidity. The valuation model used for options included in the transaction is the commonly used Black-Scholes model or numerical procedures.

In the case of unquoted financial investments in equity instruments, the costs of acquisition may also be the best estimate of fair value. Their recoverability is reviewed regularly.

The fair value of OTC derivatives is determined on the basis of sector-specific standardised measurement models, such as the present value method or option pricing models. These techniques are based on inputs of active markets, such as interest rates, yield curves and credit spreads. Since the derivatives are part of highly effective collateral agreements (Credit Support Annex to the ISDA Master Agreement and Collateral Annex to the German Master Agreement on Financial Derivatives Transactions) which are each subject to a master collateralisation agreement, measurement adjustments to reflect any potential counterparty credit risk or own credit risk (CVA and DVA) are not required for reasons of materiality. Nevertheless, with respect to defaulted property loans, receivables arising from associated derivatives are taken into account in the determination of loss allowances. The Bank uses the overnight interest rate swap curve (OIS curve) for the measurement of derivatives secured by cash collateral.

Yield curves used for measurement purposes were fine-tuned during the period under review. The measurement impact of this change in estimates, which was applied prospectively, was in a mid-single-digit million euro amount.

Amortised cost is an adequate estimate of fair value for cash funds, other loan receivables as well as short-term money market receivables and liabilities.

(9) Recognition and measurement of financial instruments

Pursuant to IAS 32, a financial instrument is any contract that gives rise to a financial asset at one contracting party and a financial liability or equity instrument at another contracting party.

Recognition

Financial instruments (including derivative financial instruments) must be recognised if the reporting entity has become a party to the contractual provisions of such financial instruments. Trade date and settlement date are not the same for regular way purchases and sales of financial assets. Such regular way purchases and sales may be accounted for either at trade date or at settlement date.

At Aareal Bank Group, financial instruments (fvpl) are recognised at the trade date, while all other financial instruments are recognised at the settlement date.

Financial instruments have to be derecognised when the contractual rights to the cash flows from the financial asset expire or an entity transfers the financial asset, including substantially all its risks and rewards. The modification of the contractual terms may also result in the derecognition of a financial instrument and the recognition of a new financial instrument.

If only a portion of risks and rewards is transferred and a portion of control is retained, the financial asset is recognised only to the extent of its continuing involvement. The extent of the continuing involvement corresponds to the extent to which the Company is exposed to changes in the value of the financial asset. A financial liability is derecognised when it is extinguished, i.e. when the obligation specified in the contract is discharged.

Modification

As a matter of principle, a modification is defined as any change made to existing terms of a loan agreement or a contractual adjustment during the loan or contract term. This applies regardless of the reasons for the modification (credit-driven or market-driven). Contractual adjustments may either lead to the derecognition of the "old" and the recognition of a "new" asset when such adjustments are substantial to the extent that they, in essence, constitute a new asset (hereinafter referred to as "substantial modification") or to the recalculation of the carrying amount and the recognition of a net modification gain or loss, when such adjustments constitute an adjustment of an existing asset (hereinafter referred to as "non-substantial modification").

The contractual adjustments subject to modifications may generally be caused by the borrower's credit quality and solvency (credit-driven modifications) or the granting of more favourable terms and conditions in an existing contract or the adjustment of the framework for financings as a result of changes in the customer's financing needs (market-driven modifications).

Both substantial and non-substantial modifications have an impact on profit or loss.

The amount of net modification gains or losses arising from non-substantial modifications is determined by the difference of the gross carrying amounts before and after the modification. Net modification gains or losses arising from market-driven modifications are recognised in net interest income, while credit-driven modifications are reported in the loss allowance. Subsequently, the changes in the carrying amount of the receivable is amortised over the remaining term of the receivable and recorded in net interest income.

In the case of a substantial modification, the old asset has to be derecognised, and a new asset has to be recognised. The difference of the gross carrying amounts before and after the modification is reported as net derecognition gain or loss after utilisation of the existing loss allowance in the case of market-driven modifications. The basis for the assessment initially are qualitative criteria such as obligor change or the extension of terms of loans that are not subject to an impaired credit quality. If these criteria do not apply, it is reviewed whether the present value of the newly agreed cash flows discounted with the original effective interest rate deviate by at least 10% from the present value that results from discounting the original cash flows with the original effective interest rate. If this is the case, the matter also qualifies as a substantial modification. The derecognition and new recognition of the loan results in a new significance level being determined for a later migration in Stage 2. In the case of credit-driven modifications, a loss allowance is recorded prior to derecognition in an amount that covers the entire difference between the old carrying amount and the fair value determined at the time of initial recognition.

Measurement

Upon initial recognition, financial instruments are measured at fair value, for subsequent measurement at ac or fvoci (cf. section Classification), in each case plus any transaction costs.

Subsequent measurement of financial assets is based on the classification of the financial instrument. Depending on the classification, financial assets are measured at amortised cost, at fair value through other comprehensive income or at fair value through profit or loss. Investments in equity instruments are measured at fair value through profit or loss, unless an irrevocable election is made at initial recognition to present subsequent changes in fair value in other comprehensive income. Within Aareal Bank Group, this election is exercised as a rule due to the investment characteristics of the equity instruments.

Financial liabilities are measured at amortised cost.

In addition, financial assets and liabilities may be designated as at fair value through profit or loss if certain prerequisites are met. Aareal Bank Group does not make use of this option.

Classification

The classification, i.e. the determination of the measurement category of a financial asset, is to be assessed on the basis of two criteria. The objective criterion refers to the contractual design as to whether the payments solely represent payments of interest and principal on the principal amount outstanding (SPPI = solely payments of principal and interest). Relevant criteria were defined that are reviewed at initial recognition. For example, this may be financings with a primary investment risk or contractually agreed payments that depend on the borrower's economic performance. The subjective classification criterion refers to the business model, i. e. the aim that a company pursues for a group of assets.

Subsequent measurement has to be based on amortised cost (ac) when the financial instrument is held in order to collect contractual cash flows (business model "Hold") and additionally the contractual cash flows represent solely payments of principal and interest, i. e. are SPPI compliant. This classification category is used for a large portion of the lending and securities business.

Subsequent measurement at fair value, with changes in fair value being recognised initially directly in equity and subsequently reclassified to profit or loss (so-called recycling) (fair value through other comprehensive income (fvoci)), has to be made when financial instruments are SPPI compliant and are held either to collect contractual cash flows or to be sold (business model "Hold & Sell").

Subsequent measurement at fair value, with changes in fair value being recognised through profit or loss (fvpl), has to be made if the financial instrument is not SPPI compliant or cannot be allocated to one of the two business models mentioned above. The latter is the case for example when there is the purpose of selling such financial instruments in the near term due to syndication covenants.

Loss allowance

Loss allowances are based on the internal staging and expected credit loss (ECL/EL) model of Aareal Bank. For this purpose, financial instruments measured at amortised cost and at fair value through other comprehensive income as well as loan commitments and financial guarantees are allocated to various stages at both initial recognition and subsequent measurement. The related loss allowances are recognised in the amount of the twelve-month or the lifetime expected credit loss.

Stage 1: All financial instruments without impairment trigger are allocated to this stage at initial recognition. Any disposal and addition involving a substantial modification does not result in a change of allocation. If the credit risk is not significantly increased, the financial instrument has to remain in Stage 1 for subsequent measurement. Loss allowances are recognised in the amount of the losses expected for the following twelve months and interest income is calculated on the basis of the gross carrying amount, applying the effective interest method. Loss allowances have to be recognised on a present value basis.

Stage 2: All financial instruments where credit risk has increased significantly since initial recognition are allocated to this stage. Any disposal and addition involving a substantial modification does not result in a change of allocation. Loss allowances are recognised in the amount of the losses expected for the entire remaining term of the instrument and interest income is calculated on the basis of the gross carrying amount, applying the effective interest method. Loss allowances have to be recognised on a present value basis. The significant increase in credit risk for allocation to Stage 2 is determined using the so-called bank-internal expected downgrade staging model and taking into consideration quantitative and qualitative criteria such as the credit rating of the client, the intensity of client handling (intensified handling), the existence of forbearance measures and/or payment defaults. If the significant increase in credit risk no longer applies, the financial instrument is re-transferred to Stage 1. A description of the credit risk methods and systems in place at Aareal Bank AG is presented in the Risk Report as part of the Group Management Report.

Stage 3: This stage includes all financial instruments where there is objective evidence of impairment (impairment trigger or credit impaired). Loss allowances are recognised in the amount of the losses of the lifetime expected credit loss, and interest income is calculated on the basis of the net carrying amount (i.e. gross carrying amount less loss allowance) using the effective interest method. The lifetime expected credit loss in Stage 3 is determined as the difference between the gross carrying amount and the present value of expected future cash flows (discounted using the original effective interest). If the impairment triggers no longer apply, the financial instrument is re-transferred to Stage 1 or 2.

POCI (purchased or originated credit impaired): This category includes all financial instruments that were subject to an impairment trigger at initial recognition. The loss allowance is recorded in the amount of the lifetime expected credit loss.

The expected credit loss is generally determined by Aareal Bank using a model-based procedure where, depending on the stage, one- or multi-year parameters are used. The calculation of the expected loss in Stage 1 and of lifetime expected credit loss in Stage 2 is based on the one-year or lifetime probability of default (PD), respectively, the loss given default (LGD), the expected exposure at default (EAD), a discount factor (DF) and the expected contractual term. Current and expected country-specific economic conditions such as the GDP, long-term interest rates and unemployment rate are included in the LGD by means of a scenario-weighted market value forecast. This probability-weighted scenario mix reflects the uncertainties as to how the Covid-19 pandemic will develop further and the potential effects of the war in Ukraine; it supplements our baseline scenario with the addition of divergent developments over an observation period of three years. In addition, the economic outlook is taken into consideration implicitly in the estimation of the future development of the borrowers' financial position and performance and the expected property cash flows and, hence, in the probability of default (PD). We moved a new LGD model for our commercial property finance portfolio (which complies with new EBA guidelines for rating procedures) into production as at 30 June 2022; this new model also serves as a basis for model-based Stage 1 and Stage 2 loss allowance. The model effect due to this conversion was approximately € 10 million.

Intensified handling triggers recognition of loss allowance, in the amount of lifetime expected credit loss for the financial instrument concerned (Stage 2). The same applies for financings for which a forbearance measure has been granted.

A period of not more than twelve months is assessed for Stage 1, while the expected contractual term of the financial instrument has to be taken into account for Stages 2 and 3 (and, in addition, the expected term for repayment of the financial instrument in Stage 3).

The expected loss in Stage 3 is usually determined on the basis of individually estimated cash flows (ECF procedure) in three probability-weighted scenarios. The amount of the loss allowance is determined as being the difference between the carrying amount of the asset and the present value of the expected future cash flows, discounted using the original effective interest rate applicable at initial recognition or after the most recent interest rate adjustment in the case of variable-rate financial instruments (taking into account cash flows from realisation of collateral provided). Collateral is largely provided in the form of land charges or mortgages; these are measured at fair value of the respective scenario which is generally based on either the income capitalisation approach or the discounted cash flow method. Impairment triggers are strong indications for a decline of the borrower's credit quality, arrears, external expert opinions as well as further indications that not all interest and principal payments can be made as contractually agreed.

The loss allowance for debt instruments measured at amortised cost is reported in the item "Loss allowance (ac)", for debt instruments measured at fair value through other comprehensive income in the item "Reserve from the measurement of debt instruments (fvoci)" and for loan commitments and financial guarantees under provisions. Debt instruments reported under POCI are accounted for on a net basis, i.e. without any loss allowance. Changes in loss allowance are reflected by increasing or decreasing the carrying amount through other loss allowance.

If the receivables are not recoverable, the corresponding loss allowance is utilised and the receivable is derecognised. Direct write-offs are not made.

The loss allowance for receivables from other transactions is determined using a simplified procedure in the amount of the lifetime expected credit losses.

Hedging relationships

The risk management strategy set out in the Risk Report of the Group Management Report is the basis for the recognition of hedging relationships. At Aareal Bank Group, risks from value fluctuations are hedged in the case of transactions not measured at fair value through profit or loss. In this context, the risks from hedged items are intended to be offset by entering into hedging derivatives where the fair value changes have the opposite direction compared to those of the hedged item. Average prices of the hedges are not relevant for risk management. Hedging relationships are not recorded for transactions that are measured at fair value through profit or loss. The results from economic hedging relationships are offset in net gain or loss from transactions measured at fair value.

Hedge accounting in accordance with IFRS 9 distinguishes various forms of hedging relationships.

Fair value hedges are used to hedge hedged items against fair value changes resulting from changes in interest rates or from changes in interest and exchange rates that are determined accordingly as hedged risk. At Aareal Bank Group, property loans, securities and promissory note loans are typically hedged using interest rate swaps and cross-currency swaps. The derivatives used for hedging are accounted for at fair value through profit or loss. The offsetting fair value changes of the hedged item resulting from the hedged risk are also recognised through profit or loss. The proportion of the fair value changes of the hedged item not attributable to the hedged risk is accounted for in line with the classification of the hedged item. A fully effective hedging relationship results in offsetting measurement results. The hedging relationship may result in adjustments in the carrying amount of the underlying transaction. Such adjustments will only be recognised in income at the end of the transaction term.

Hedges of a net investment in a foreign operation are used to hedge currency risks arising on the translation of the net assets of foreign Group companies. The effective portion of measurement gains or losses from derivative hedging instruments is recognised directly in equity in the currency translation reserve. The ineffective portion of the hedging derivative's fair value changes have to be recognised in the income statement. The gain or loss on the hedging derivative relating to the effective portion of the hedge that has been recognised directly in equity shall be recognised in profit or loss on disposal of the foreign operation. Any translation differences resulting from the translation of an entity with a different functional currency into the Group currency also have to be recognised directly in equity in the currency translation reserve; they will be reclassified to the income statement upon disposal of the foreign operation.

The effectiveness of hedging relationships is reviewed by way of a forward-looking sensitivity analysis regarding the hedged risks. For this purpose, basis point values, i.e. sensitivities of the IFRS carrying amounts of the hedged items and the hedging transactions, are compared. Factors which may lead to ineffectiveness include differences in the term of transactions or payment dates, or diverging market conventions for underlying transactions and related hedges which affect the relevant measurement parameters (e.g. discounting using an OIS rate) and all risk and hedge types. Currency basis spreads are accounted for as hedging costs, with fair value changes of this element recognised in other comprehensive income. In the event of any changes to hedging relationships occurring in the course of risk management, the hedge ratio of existing hedges and/or hedged items is adjusted accordingly.

Please also refer to our explanations in the Notes (36) and (72).

(10) Cash funds

Cash funds include cash on hand and balances with central banks. Cash funds are exclusively allocated to the measurement category "ac".

(11) Loan receivables

The item "Loan receivables" comprises property loans, public-sector loans and other loan receivables, including deferred interest. Loan receivables can be allocated to all measurement categories. At present, they are allocated to the ac and fvpl measurement categories. The portion of loan commitments not disbursed is reported as contingent liabilities.

(12) Money market and capital market receivables

The item "Money market and capital market receivables" comprises money market receivables, promissory note loans and debt securities, including deferred interest. Money market and capital market receivables may generally be allocated to all measurement categories.

(13) Equity instruments

This item includes unconsolidated equity instruments. They are allocated to the measurement category "fvoci".

(14) Receivables from other transactions

The item "Receivables from other transactions" comprises trade receivables and other financial receivables. Receivables from other transactions are exclusively allocated to the measurement category "ac".

(15) Positive market value of designated hedging derivatives / Negative market value of designated hedging derivatives

The items "Positive market value of designated hedging derivatives" and "Negative market value of designated hedging derivatives" include derivatives with positive or negative market values from fair value hedges, cash flow hedges and hedges of a net investment in a foreign operation, including deferred interest. Derivatives are exclusively allocated to the measurement category "fvpl". The basis for the recognition of hedging relationships is described in the chapter "Recognition and measurement of financial instruments" in this section. Effects from the measurement of these derivatives are reported in the item "Net gain or loss from hedge accounting", together with the effects from the measurement of the transactions.

(16) Positive market values of other derivatives / Negative market value of other derivatives

Derivative financial instruments that are not part of recognised hedging relationships are reported in Aareal Bank Group under positive or negative market values of other derivatives. They are mainly used to hedge economic market price risks. Derivatives are exclusively allocated to the measurement category "fvpl". Results from the measurement and the termination of the derivatives are reported in the item "Net gain or loss from financial instruments (fvpl)". Interest received or paid in connection with these derivatives is also recorded generally in the item "Net gain or loss from financial instruments (fvpl)". Interest received or paid for derivatives entered into for hedging purposes which, however, do not meet the hedge accounting criteria, is reported in net interest income. Effects from the measurement of these derivatives are reported in the item "Net gain or loss from financial instruments (fvpl)", together with the effects from the measurement of the transactions.

(17) Investments accounted for using the equity method

The item "Investments accounted for using the equity method" includes shares in companies where Aareal Bank Group can exercise significant influence (associates) as well as shares in joint ventures.

Investments in associates included in this item are recognised at cost when the significant influence arises, and subsequently carried at amortised cost whereby, in particular, the share of results of operations of any financial year is recognised in income.

The equity method applied to the major associates was based on the most recent available financial statements.

(18) Intangible assets

The item "Intangible assets" consists of proprietary software, goodwill and other intangible assets such as purchased software and licences.

Intangible assets (except goodwill) are carried at cost, less accumulated amortisation and any impairment losses.

Research costs incurred in connection with software development are expensed as they are incurred. Development costs are capitalised from the time when the software development can be regarded as completed from a technical perspective, and several other conditions are fulfilled. They are amortised on a straight-line basis, using an estimated economic life of generally five years. Purchased software is also deemed to have a limited useful life. Amortisation is recognised in administrative expenses.

Goodwill is defined as the excess of the cost of acquisition over the fair value of the Group's interest in the net assets of an acquired entity, at the time of acquisition (positive difference). Goodwill is carried at historical cost less accumulated impairments. Any negative goodwill arising upon acquisition is immediately recognised in income.

In case the annual impairment test (which must be carried out at least on an annual basis) shows that there are indications of impairment of intangible assets (as set out in IAS 36) and that the recoverable amount is lower than the carrying amount of the asset concerned, the asset is written down through profit or loss, to the estimated recoverable amount.

If it is impossible to estimate the recoverable amount for a specific asset, the recoverable amount of the cash-generating unit that the asset belongs to must be determined. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Aareal Bank Group defines cash-generating units either on the basis of a single subsidiary or on product level. The recoverable amount of an asset or a cash-generating unit is the higher of fair value less costs to sell and value in use. Value in use is the present value of future cash flows expected to arise from the continuing use of an asset or cash-generating unit. Future cash flows are determined based on medium-term projections. The present value of the future cash flows is determined using discount factors which are in line with the risks involved. Accordingly, the recognition of intangible assets and the impairment test are also subject to estimation uncertainties.

(19) Property and equipment

Property and equipment includes owner-occupied land and buildings as well as office furniture and equipment, and their right-of-use assets. Property and equipment also includes a hotel operated by Aareal Bank. Property and equipment is measured at cost, less accumulated depreciation, impairment losses and write-downs. Depreciation, impairment losses and write-downs are reported under administrative expenses, while those of the owner-operated hotel are shown in net other operating income/expenses.

Owner-occupied buildings reported under property and equipment are depreciated on a straight-line basis, over a period of 25 to 50 years. Owner-occupied land is not depreciated. Please refer to the explanations in the Notes on other assets for the accounting method to be applied for land and buildings which are not owner-occupied. Office furniture and equipment items are depreciated using the straight-line method, applying the following periods:

	Depreciation period
Other property and equipment	
IT equipment	3-7 years
Other office furniture and equipment	5-13 years

Tenant improvements are depreciated based on the principles applicable for the relevant building.

For details on recognising impairments as defined in IAS 36, please refer to the explanations in the Note on intangible assets in this section.

Gains and losses upon disposal of property and equipment are recognised in income (in net other operating income/expenses).

The costs to purchase property and equipment in the amount of up to € 250.00 (low-value assets) are expensed as they are incurred.

Any items of property and equipment with a cost of more than € 250.00 net, but not exceeding € 1,000.00, can be combined in a collective account for the year, which is then depreciated on a straight-line basis over a period of five years.

(20) Income tax assets/income tax liabilities

The measurement of uncertain tax positions is made using the best estimate of the expenditure required to settle the obligation (most likely amount). In contrast, measurement is based on the expected value if this helps to achieve a more precise estimate.

(21) Deferred tax assets/deferred tax liabilities

Deferred tax assets are recognised when they are deemed recoverable. The recoverability is assessed using tax planning (internal assessment) on the basis of medium-term Group planning. Accordingly, deferred tax assets are only recognised to the extent that we deem it probable that future taxable profits will be available against which the temporary differences and tax loss carryforwards can be utilised. In this context, the matters underlying the deferred tax items were subjected to a maturity analysis. Deferred taxes are calculated on the basis of country- and company-specific tax rates expected to apply at the time of the realisation of temporary differences and set-off against loss carryforwards.

Deferred tax assets and deferred tax liabilities are offset in accordance with IAS 12.74 when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or tax group.

We generally assume that the deferred tax items are of a long-term nature. The remaining maturity or the time of the expected realisation is long-term when there is more than one year between the reporting date and the maturity date.

(22) Other assets

The item “Other assets” includes, amongst other things, properties and contract assets. Properties reported under other assets are intended for short-term disposal. They are measured at the lower of cost or net realisable value, in accordance with IAS 2, and therefore are subject to estimation uncertainties.

(23) Money market and capital market liabilities

The item “Money market and capital market liabilities” comprises money market liabilities, mortgage Pfandbriefe, registered public-sector Pfandbriefe, promissory note loans and other debt securities, including deferred interest. Money market and capital market liabilities are allocated to the measurement category “ac”.

(24) Deposits from the housing industry

The item “Deposits from the housing industry” includes deposits payable on demand and term deposits, including deferred interest. Deposits from the housing industry are allocated to the measurement category “ac”.

(25) Liabilities from other transactions

The item "Liabilities from other transactions" comprises trade payables and other financial liabilities. Liabilities from other transactions are exclusively allocated to the measurement category "ac".

(26) Subordinated liabilities

Subordinated funds raised do not provide for any early repayment obligation. In the event of liquidation or insolvency, claims on interest and principal from these liabilities are subordinated to the claims of all other creditors, which are not subordinated themselves. Subordinated liabilities are allocated to the measurement category "ac".

(27) Provisions

The item "Provisions" comprises provisions for pensions and similar obligations, provisions for staff expenses and non-staff operating costs, provisions for risks related to unrecognised items in the lending business, provisions for legal or tax risks, as well as other provisions. Provisions are recognised when there is a present legal or constructive obligation towards third parties arising from a past event, the outflow of resources to meet this obligation is probable and the amount of the obligation can be reliably estimated. The measurement of provisions is made using the best estimate of the expenditure required to settle the obligation (most likely amount). In the context of acquisitions in accordance with IFRS 3, contingent liabilities were also recognised at their fair value (expected value). These are released when the reasons for their recognition cease to exist.

Measurement is subject to several uncertainties and often requires significant estimates made by the management in relation to various factors that may not apply subsequently. The final amount of the liabilities may deviate significantly from the measurement previously made in accounting. For example, the outcome of individual legal proceedings may not be predicted with certainty.
If utilisation from the obligation is not expected in the short term, i.e. within twelve months, the provision will be recognised at present value.

Provisions for pensions and similar obligations

Aareal Bank Group maintains various pension plans as defined in IAS 19. For the purpose of reporting pension obligations, IAS 19 makes a distinction between defined contribution plans and defined benefit plans.

Under defined contribution plans, an enterprise pays fixed contributions into a separate entity or a fund and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods. Contributions paid to the statutory pension insurance scheme are also classified as defined contribution plans. The contributions paid to a defined contribution plan are recorded as staff expenses.

Defined benefit obligations are all pension obligations that do not meet the criteria of a defined contribution obligation. The amount of obligations usually depends on one or several factors, including age, length of service, and salary.

The Group's obligations under defined benefit plans are recognised as a provision in the consolidated statement of financial position. These are based on general works agreements on an employee pension scheme, individual agreements with executive staff as well as individual agreements concluded with the members of the Company's senior management. Projected economic and demographic developments as well as salary trends must be applied to the calculation of the provisions. Calculating the amount of provisions in the Group is based on actuarial opinions which are prepared by external actuaries on the basis of Aareal Bank-specific and Group-wide standardised parameters.

Provisions for pensions and similar obligations under defined benefit plans are determined based on actuarial opinions in accordance with IAS 19 on the basis of the projected unit credit method; the various defined benefit plans are measured separately. The fair value of the plan assets is deducted from the present value of the pension obligation, taking into account, if applicable, the rules for the asset ceiling in relation to a surplus of plan assets over the benefit obligation. The resulting amount represents the net defined benefit liability (provision) or the net defined benefit asset. Net interest expense in the financial year is determined by applying the discount rate calculated at the beginning of the financial year to the net liability calculated as at that date. The discount rate used to determine the present value of the obligation is based on the capital market rate of high quality corporate bonds with comparable maturities at the reporting date. Determination is based on the GlobalRate:Link method by Willis Towers Watson. The data basis consists of corporate bonds recorded by Bloomberg which have a rating of at least "AA" and are denominated in the same currency as the underlying pension obligation. Actuarial gains and losses (remeasurements), which – in connection with the amount of obligations – arise on changes in expectations regarding life expectancy, pension increases, salary development and discount rate compared to the estimation made at the beginning of the period or compared to the actual trend during the period, are recorded in other comprehensive income in the item "Changes in the reserve from remeasurements of defined benefit plans". Actuarial gains and losses (remeasurements) recorded in other comprehensive income may not be reclassified subsequently to profit or loss (recycling). Differences between the expected return on plan assets, determined at the beginning of the period using the then applicable discount rate, and the actual return on plan assets (remeasurement) at the end of the period are also recognised in other comprehensive income. Actuarial gains and losses as well as the difference between expected and actual return on plan assets are included in other reserves. They are reported separately in the statement of changes in equity. Thus, the recognition of pension obligations is based on estimates which are subject to uncertainty.

Share-based payment

Aareal Bank Group maintains share-based payment plans subject to cash settlement in accordance with IFRS 2. We refer to our comments in Note (82) to the consolidated financial statements, which include a detailed description of the plans and their scope as well as information on the valuation model applied and the effects of share-based payments on the Group's financial position and performance.

Provisions for obligations arising from share-based remuneration plans are recognised under administrative expenses, in the amount of the fair value of the relevant obligation as at the reporting date.

(28) Other liabilities

The item "Other liabilities" includes, among other things, contract liabilities, deferred income and liabilities from other taxes..

(29) Equity

The item "Equity" comprises subscribed capital, capital reserves, retained earnings and other reserves. Other reserves include the reserve from remeasurements of defined benefit plans, the reserves from the measurement of equity and debt instrument at fair value through other comprehensive income, the reserve from changes in the value of foreign currency basis spreads and currency translation reserve. In addition, the item "Equity" includes non-controlling interests as well as the so-called Additional Tier I bond (AT I bond). The AT I bond is classified as equity since there is neither an obligation to repay the bond nor is there an obligation for ongoing debt service (payment of a dividend). The transaction costs directly attributable to the issue of the AT I bond as well as dividends paid are deducted directly from equity, net of taxes.

(30) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss that it incurs because a specified debtor fails to make payment when due. A guarantor recognises a financial guarantee contract as a liability at the date of addition, using the fair value of the guarantee obligation. The obligation is subsequently measured at the greater of the impaired amount and the original amount, less any accumulated amortisation. Within Aareal Bank Group, financial guarantee contracts are presented based on the present value of the claim resulting from the future premium payments of the holder, and offset with the obligation for the guarantee (net basis).

Notes to the Statement of Comprehensive Income

(31) Net interest income

€ mn	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021
Interest income from financial assets (ac and fvoci)	1,108	684
Loan receivables	1,086	684
Money market and capital market receivables	22	0
Interest income from financial liabilities (ac)	60	85
Money market and capital market liabilities	46	66
Deposits from the housing industry	14	19
Interest income from financial instruments (fvpl)	30	20
Loan receivables	16	16
Other derivatives	14	4
Market-driven modification gains	2	1
Total interest and similar income	**1,200**	**790**
Interest expenses from financial liabilities (ac)	172	17
Money market and capital market liabilities	157	0
Deposits from the housing industry	2	0
Liabilities from other transactions	0	2
Subordinated liabilities	13	15
Interest expenses for financial assets (ac and fvoci)	24	47
Cash funds	20	29
Money market and capital market receivables	4	18
Interest expenses for financial instruments (fvpl)	283	126
Other derivatives	283	126
Market-driven modification losses	19	3
Total interest and similar expenses	**498**	**193**
Total	**702**	**597**

Net interest income of € 702 million was significantly higher than in the previous year (€ 597 million), mainly due to a year-on-year increase in the credit portfolio, good margins as well as first positive effects from higher market interest rates on the deposit-taking business and an improved funding mix. As expected, this also includes the pro-rata interest rate bonus of € 13 million paid in the first half of the year under the ECB's existing Targeted Longer-Term Refinancing Operations (TLTROs), as Aareal Bank's net lending volume in the euro area continued to rise.

Following the decision of the Governing Council of the ECB on 27 October 2022 to adjust the terms of the current third series of TLTROs, Aareal Bank already repaid € 4.3 billion of the € 5.3 billion in November 2022. The unilateral change to the contractual terms resulted in a measurement loss of € 14 million from the interest rate hedges entered into in this context. This loss was recognised as a net modification loss in relation to the € 1.0 billion TLTROs still held in the portfolio.

(32) Loss allowance

€ mn	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
Additions	282	245
Reversals	92	113
Recoveries on loans and advances previously written off	1	1
Loss allowance – other items	–	0
Credit-driven net modification gain or loss	3	2
Total	**192**	**133**

Loss allowance totalled € 192 million (2021: € 133 million). This included an addition to loss allowance of € 134 million for the Bank's exposure to Russia which is being run down, determined in line with IFRS 9 based on various probability-weighted scenarios: the highest probability was attributed to the scenario of a sale of receivables, the second-highest probability to the scenario of a total default. A third scenario assumed the renewal and repayment of receivables. This brings coverage of the outstanding exposure (€ 213 million) to more than 60 %. The exposure could not be serviced due to the sanctions imposed in Russia (transfer risk), even though the borrower is willing and able to pay. The potential additional impact of the war in Ukraine and the economic consequences of the mutual sanctions imposed are very difficult to estimate at this point in time.

Furthermore, we moved a new LGD model for our commercial property finance portfolio (which complies with new EBA guidelines for rating procedures) into production as at the end of the first half of the year; this new model also serves as a basis for model-based Stage 1 and Stage 2 loss allowance. The model effect due to this conversion was approximately € 10 million. Other than that, there were only few loan defaults, a reflection of the portfolio's high quality and clear recovery trends given the end of the pandemic. In addition, Aareal Bank has recognised a management overlay of approximately € 11 million for all property loans in Stage 1 and Stage 2, in order to account for macro-economic uncertainty affecting economic forecasts to an extraordinary extent, given the impact of the Ukraine war. Uncertainty emanates from a combination of recessionary trends, high dynamic interest rate increases, and an extraordinary level of inflation. The overlay was determined using a scenario-dependent forecast of probabilities of default, based on GDP forecasts over the term, and an additional increase in model-based probabilities of default by around 5 % for 2023.

The recognition of loss allowance and the collateral values used are based on the evaluation of five different macro-economic scenarios which are given different weightings. The most probable scenario is called the "Baseline" scenario and is described in detail in the chapter "Macro-economic environment". The adverse scenarios account for an aggregate weighting of 45 %. In the following, three major macro-economic factors are compared in order to classify the evaluated scenarios:

%	2022	2023	2024	2025
"Positive" scenario (10 % weighting)				
Gross domestic product (year-on-year change in %)				
Euro zone	3.2	0.7	3.2	1.5
USA	2.0	1.0	1.9	1.7
UK	4.4	0.0	2.5	2.4
Unemployment (%)				
Euro zone	6.7	7.1	6.8	6.7
USA	3.7	4.0	4.4	3.8
UK	3.7	4.3	4.3	3.9
Long-term interest rates (1-year government bonds) (%)				
Euro zone	2.8	2.2	2.3	2.3
USA	3.7	2.8	2.8	2.8
UK	3.3	3.1	2.9	2.3
Portfolio-weighted property price development (2022 basis = 100%)	100 %	99 %	101 %	101 %

%	2022	2023	2024	2025
“Baseline” scenario (45% weighting)				
Gross domestic product (year-on-year change in %)				
Euro zone	3.2	-0.1	2.0	2.1
USA	2.0	0.1	0.9	2.1
UK	4.4	-0.9	1.5	2.7
Unemployment (%)				
Euro zone	6.7	7.2	7.1	7.0
USA	3.7	4.2	4.6	4.0
UK	3.7	4.4	4.4	4.0
Long-term interest rates (1-year government bonds) (%)				
Euro zone	2.8	2.5	2.3	2.3
USA	3.7	3.1	2.8	2.8
UK	3.3	3.2	2.9	2.3
Portfolio-weighted property price development (2022 basis = 100%)	100%	97%	97%	97%

%	2022	2023	2024	2025
“Adverse 1” scenario (15% weighting)				
Gross domestic product (year-on-year change in %)				
Euro zone	3.2	-1.5	2.6	1.8
USA	2.0	-0.4	0.9	2.1
UK	4.4	-1.7	1.7	2.5
Unemployment (%)				
Euro zone	6.7	7.7	7.5	7.5
USA	3.7	4.4	4.8	4.1
UK	3.7	4.6	4.7	4.4
Long-term interest rates (10-year government bonds) (%)				
Euro zone	2.8	2.7	2.5	2.5
USA	3.7	3.1	2.8	2.8
UK	3.3	3.5	3.1	2.5
Portfolio-weighted property price development (2022 basis = 100%)	100%	95%	95%	94%

%	2022	2023	2024	2025
"Adverse 2" scenario (15% weighting)				
Gross domestic product (year-on-year change in %)				
Euro zone	3.2	-0.8	0.8	1.3
USA	2.0	-0.7	-0.9	1.4
UK	4.4	-1.6	-0.2	1.5
Unemployment (%)				
Euro zone	6.7	7.3	7.7	7.9
USA	3.7	4.5	5.5	5.2
UK	3.7	4.5	5.1	5.2
Long-term interest rates (10-year government bonds) (%)				
Euro zone	2.8	3.5	3.7	3.7
USA	3.7	4.6	4.3	4.0
UK	3.3	4.0	3.9	3.4
Portfolio-weighted property price development (2022 basis = 100%)	100%	95%	89%	86%

%	2022	2023	2024	2025
"Adverse 3" scenario (15% weighting)				
Gross domestic product (year-on-year change in %)				
Euro zone	3.2	-1.4	-0.3	1.5
USA	2.0	-1.2	-1.1	1.8
UK	4.4	-2.1	-1.1	2.0
Unemployment (%)				
Euro zone	6.7	7.6	8.4	8.5
USA	3.7	4.4	5.3	4.6
UK	3.7	4.6	5.6	5.7
Long-term interest rates (10-year government bonds) (%)				
Euro zone	2.8	2.3	1.8	1.9
USA	3.7	2.7	2.0	2.2
UK	3.3	3.1	2.2	1.6
Portfolio-weighted property price development (2022 basis = 100%)	100%	95%	91%	91%

The Stage 1 and Stage 2 loss allowances in the property finance business are calculated using the probability of default (PD) and the loss given default (LGD) based on models, and largely depend on the market value of the properties. In this context, the scenarios presented above are taken into account in the LGD calculation using the respective weightings. In addition, the economic outlook is taken into consideration implicitly in the estimation of the future development of the borrowers' financial position and performance and the expected property cash flows and, hence, in the probability of default (PD). As part of the assessment of sensitivity, we present the loss allowance for each scenario with a 100% weighting in each case. This calculation includes the so-called quantitative stage transfer to Stage 2 applying the expected downgrade model on the basis of the GDP background factor included in the management overlay, but does not include qualitative criteria for a significant increase in credit risk.

Stage 1 and Stage 2 model-based loss allowance for the property finance business

%	31 Dec 2022
Scenario-weighted (recognised amount)	98
"Positive" scenario (100 %)	89
"Baseline" scenario (100 %)	94
"Adverse 1" scenario (100 %)	99
"Adverse 2" scenario (100 %)	103
"Adverse 3" scenario (100 %)	116

Assuming a flat increase/decrease in market values by 5 % at year-end and the probabilities of default as at the reporting date, loss allowance would have decreased by around € 7 million or increased by around € 16 million, respectively.

Please also refer to our explanations in Note (65).

(33) Net commission income

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Commission income from		
ERP products (incl. add-on products)	207	182
Digital solutions	85	70
Banking business and other activities	45	45
Total commission income	**337**	**297**
Commission expenses for		
Purchased services	56	48
Banking business and other activities	4	4
Total commission expenses	**60**	**52**
Total	**277**	**245**

Net commission income increased to € 277 million (2021: € 245 million) on the back of higher sales revenue at Aareon and the performance of the Banking & Digital Solutions segment.

Commission income from ERP products and digital solutions includes € 17 million of licence revenue (2021: € 19 million) recognised at a point in time. In the reporting period, revenue of € 2 million (2021: € 2 million) was recorded, attributable to performance obligations of earlier periods.

The net amount of commission income and commission expenses from financial assets and financial liabilities not measured at fair value amounted to € 8 million (2021: € 9 million)

(34) Net derecognition gain or loss

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net gain or loss on the derecognition of financial assets (ac)		
Loan receivables	16	23
Money market and capital market receivables	-3	-3
Net gain or loss on the derecognition of financial liabilities (ac)		
Money market and capital market liabilities	-21	3
Net gain or loss on the derecognition of financial assets (fvoci)		
Money market and capital market receivables	9	0
Total	**1**	**23**

The net derecognition gain or loss amounted to € 1 million (2021: € 23 million).

Following the decision of the Governing Council of the ECB on 27 October 2022 to adjust the terms of the current third series of the targeted longer-term refinancing operations (TLTRO III), Aareal Bank already repaid € 4.3 billion of the € 5.3 billion TLTROs in November 2022. As a result of the unilateral change to the contractual terms, a valuation loss of € 24 million was realised with regard to the interest rate hedges entered into in this context, which offset the market-driven effects from early loan repayments.

(35) Net gain or loss from financial instruments (fvpl)

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net gain or loss from loan receivables	-28	-30
Net gain or loss from money market and capital market receivables	0	-17
Net gain or loss from other derivatives	53	21
Currency translation	1	-4
Total	**26**	**-30**

Net gain or loss from financial instruments (fvpl) in the amount of € 26 million (2021: € -30 million) was mainly incurred by positive valuation effects resulting from market developments for currency and interest rate hedging derivatives, due to the strong market dynamics and starting from negative initial values at the beginning of 2022. To reduce volatility in the income statement brought about by these items, the Bank had concluded additional hedges in the first half of 2022.

(36) Net gain or loss from hedge accounting

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Ineffective portion of fair value hedges	-2	-5
Ineffective portion of net investment hedges	0	0
Total	**-2**	**-5**

Please also refer to our explanations in the Notes (9) and (72).

(37) Net gain or loss from investments accounted for using the equity method

In the past financial year, there was a net loss from investments accounted for using the equity method of € -2 million (2021: € -2 million); this was also in line with the pro-rata results from joint ventures and associates.

(38) Administrative expenses

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Staff expenses	341	323
Wages and salaries	277	257
Social security contributions	42	40
Pensions	22	26
Other administrative expenses	173	159
Depreciation, amortisation and impairment of property and equipment and intangible assets	57	46
Total	**571**	**528**

Administrative expenses rose to € 571 million (2021: € 528 million) as a result of two factors: on the one hand, business expansion, especially at Aareon; on the other hand, transaction costs incurred by the successful completion of the voluntary public offer made by Atlantic BidCo.

Staff expenses include contributions to defined contribution plans in the amount of € 16 million (2021: € 16 million).

Other administrative expenses include administrative costs for research and development in relation to existing and new functions and products not eligible for capitalisation in the amount of € 48 million (2021: € 30 million).

This item also includes the total fees charged by the auditor of the consolidated financial statements in the 2022 financial year, which consists of the following sub-items:

€ 000's	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Auditing fees	3,801	4,066
Other assurance services	213	192
Tax advisory services	–	–
Other services	7	25
Total	**4,021**	**4,283**

Other assurance services include the review in accordance with the German Securities Trading Act (WpHG), the remuneration report, comfort letters and the review of the separate combined non-financial report. Other services primarily include regulatory advice.

(39) Net other operating income/expenses

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Income from properties	36	26
Income from the reversal of provisions	1	0
Income from goods and services	0	0
Other operating income	22	21
Total other operating income	**59**	**47**
Expenses for properties	48	32
Expenses for other taxes	6	8
Other operating expenses	5	19
Total other operating expenses	**59**	**59**
Total	**0**	**-12**

Income from properties was burdened by write-downs of properties held by the Bank. In the previous year, miscellaneous other operating expenses were affected by interest on tax back payments of € 11 million.

(40) Income taxes

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Current income taxes	132	93
Deferred taxes	-46	-6
Total	**86**	**87**

The differences between calculated and reported income taxes are presented in the following reconciliation:

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Operating profit (before income taxes)	239	155
Expected tax rate	31.3 %	31.7 %
Calculated income taxes	**75**	**49**
Reconciliation to reported income taxes		
Different foreign tax burden	-6	-3
Tax attributable to tax-exempt income	-2	0
Tax attributable to non-deductible expenses	24	22
Remeasurement of deferred taxes	-2	0
Taxes for previous years	-5	18
Effect of changes in tax rates	2	–
Non-controlling interest income	0	–
Other tax effects	–	1
Reported income taxes	**86**	**87**
Effective tax rate	36 %	56 %

(41) Earnings per share

Earnings per ordinary share are determined by dividing the earnings attributable to ordinary shareholders of Aareal Bank AG by the weighted average of ordinary shares outstanding during the financial year (59,857,221 shares). Basic earnings per ordinary share correspond to diluted earnings per ordinary share.

Earnings per AT1 unit (based on 100,000,000 AT1 units with a notional amount of € 3 each) are determined by dividing the earnings allocated to AT1 investors by the weighted average of AT1 units outstanding during the financial year. Basic earnings per AT1 unit correspond to diluted earnings per AT1 unit.

Notes to the Statement of Financial Position

(42) Financial assets (ac)

€ mn	31 Dec 2022	31 Dec 2021
Cash funds (ac)	**5,424**	**6,942**
Cash on hand	0	0
Balances with central banks	5,424	6,942
Loan receivables (ac)	**29,948**	**29,434**
Property loans	29,662	29,059
Public-sector loans	268	323
Other loan receivables	18	52
Money market and capital market receivables (ac)	**5,017**	**5,884**
Money market receivables	1,914	1,264
Promissory note loans	1,345	1,691
Bonds	1,758	2,929
Receivables from other transactions (ac)	**101**	**85**
Trade receivables	44	38
Other financial receivables	57	47
Total	**40,490**	**42,345**

(43) Loss allowance (ac)

31 December 2022

€ mn	Stage 1	Stage 2	Stage 3	Receivables from other transactions (ac)	Total loss allowance (ac)
Balance as at 1 January	**9**	**77**	**403**	**3**	**492**
Additions	33	38	206	1	**278**
Utilisation	–	–	198	1	**199**
Reversals	5	56	27	0	**88**
Transfer to Stage 1	10	-10	–	–	**–**
Transfer to Stage 2	-5	12	-7	–	**–**
Transfer to Stage 3	–	-3	3	–	**–**

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€ mn	Stage 1	Stage 2	Stage 3	Receivables from other transactions (ac)	Total loss allowance (ac)
Interest rate effect	–	–	15	–	**15**
Currency adjustments	0	1	-9	0	**-8**
Changes in the basis of consolidation	–	–	–	0	**0**
Balance as at 31 December	**42**	**59**	**386**	**3**	**490**

The loss allowance for financial assets measured at amortised cost refers to loan receivables, money and capital market receivables as well as receivables from other transactions (largely trade receivables) that are measured at amortised cost.

A detailed breakdown of loss allowance by classes of financial assets is disclosed in Note (65) in the chapter “Notes related to financial instruments”.

31 December 2021

€ mn	Stage 1	Stage 2	Stage 3	Receivables from other transactions (ac)	Total loss allowance(ac)
Balance as at 1 January	**19**	**77**	**492**	**4**	**592**
Additions	12	30	200	0	**242**
Utilisation	0	–	295	1	**296**
Reversals	9	43	57	0	**109**
Transfer to Stage 1	0	0	–	–	**–**
Transfer to Stage 2	-13	13	0	–	**–**
Transfer to Stage 3	0	-4	4	–	**–**
Interest rate effect	–	–	41	–	**41**
Currency adjustments	0	4	18	0	**22**
Changes in the basis of consolidation	–	–	–	–	**–**
Balance as at 31 December	**9**	**77**	**403**	**3**	**492**

(44) Financial assets (fvoci)

€ mn	31 Dec 2022	31 Dec 2021
Money market and capital market receivables (fvoci)	**3,550**	**3,749**
Bonds	3,550	3,749
Equity instruments (fvoci)	**2**	**4**
Equities and other non-fixed income securities	0	0
Other investments	2	4
Total	**3,552**	**3,753**

(45) Financial assets (fvpl)

€ mn	31 Dec 2022	31 Dec 2021
Loan receivables (fvpl)	**427**	**598**
Property loans	427	598
Money market and capital market receivables (fvpl)	**5**	**4**
Fund units	5	4
Positive market value of designated hedging derivatives (fvpl)	**1,104**	**900**
Positive market value of fair value hedges	1,102	892
Positive market value of net investment hedges	2	8
Positive market value of other derivatives (fvpl)	**722**	**232**
Positive market value of economic hedging derivatives	251	111
Positive market value of miscellaneous derivatives	471	121
Total	**2,258**	**1,734**

(46) Non-current assets held for sale

Assets of € 7 million (including € 4 million of goodwill) were due to the agreed management buyout of phi-Consulting GmbH, which was closed in January 2023. The sale is part of Aareon's strategy to boost product profitability.

(47) Investments accounted for using the equity method

Aareal Bank holds interests in seven associates (2021: seven) and two joint ventures (2021: two) that are accounted for using the equity method. The sum total of carrying amounts of the equity investments amounted to € 14 million (2021: € 19 million).

(48) Intangible assets

€ mn	31 Dec 2022	31 Dec 2021
Goodwill	378	235
Proprietary software	84	75
Other intangible assets	104	84
Total	**566**	**394**

Goodwill is entirely attributable to the Banking & Digital Solutions and Aareon segments and can be allocated as follows.

€ mn	31 Dec 2022 Goodwill	31 Dec 2021 Goodwill
Banking & Digital Solutions		
Germany	9	4
Aareon		
DACH	106	106
International Business		
SMB UK	51	54
Aareon Netherlands	55	47
Aareon France	11	12
Aareon Nordics	141	8
Aareon UK	5	5
Total	**378**	**236**

The increase in goodwill is attributable to acquisitions.

Goodwill is generally tested for impairment as at 31 December each year within the context of an impairment test for each cash-generating unit ("CGU"). Apart from the CGU Banking & Digital Solutions, Aareon has defined the following: CGUs: Aareon DACH, SMB ("small and medium business") UK, Aareon Netherlands, Aareon France, Aareon Nordics and Aareon UK. The basis for the valuation is the present value of future cash flows (value in use), which are determined using medium-term projections. There is an individual planning of revenue and expense items within the first three to a maximum of six years. The parameters underlying the major assumptions are based on internal and external factors as well as on past experience. The major basis is the previous year's planning. Revenue projections are largely subject to assumptions in relation to new business, as well as renewals of contracts and follow-up business with existing customers. At the same time, these represent the key sources for estimation uncertainty. Regular sales revenues, such as maintenance and fees from transactions with existing customers, are normally not subject to major estimation uncertainty. The projections for cost of materials are derived from revenue projections. The projections for staff expenses predominantly take into account the number of employees, as well as wage and salary trends. Other costs are projected based on the previous year's figures, taking into account known one-off effects. Estimation uncertainties in relation to costs arise as a result of unplanned price increases or unforeseeable one-off effects. In principle, estimation uncertainty increases if assumptions are made further into the future. Cash flows beyond the individual planning horizon are usually determined by way of a perpetual annuity.

The present values of future cash flows were determined on the basis of a risk-adequate discount factor of 8.86 – 11.30 % after taxes for the Aareon segment and of 6.13 % after taxes for the Banking & Digital Solutions segment. The discount factor for the Aareon segment is calculated based on an underlying risk-free interest rate of 2.03 % – 2.86 % plus a market risk premium of 7.00 % – 7.12 %, multiplied with a beta factor of 1.02 – 1.24. The discount factor for the Banking & Digital Solutions segment is calculated based on an underlying risk-free interest rate of 2.03 % plus a market risk premium of 7.5 %, multiplied with a beta factor of 0.71. In view of the uncertainty surrounding planning beyond the detailed planning phase, the growth rate is assumed to be 2 % based on a cautious view of the market environment. The recoverable amounts show an excess compared to the carrying amounts: No impairment is incurred for all CGUs – except the SMB UK and Aareon Nordics CGUs – even if, ceteris paribus, the above-mentioned material assumptions were to change significantly (such as a 1 % increase in the risk-adequate discount factor, a 5 % decline in the EBITDA included in the cash-flow projections, or a decrease in the growth rate to 1 %). For the SMB UK CGU, the impairment would be in the low single-digit million euro range; for the Aareon Nordics CGU, it would be in the low single-digit to low double-digit million euro range.

Other intangible assets, and property and equipment, are tested for impairment if certain events (triggering events) or changed circumstances suggest that an impairment may have been incurred. Largely based on its different ERP solutions, Aareon distinguishes between 13 asset CGUs that are tested for potential impairments. Each ERP solution generates cash flows independent from those of other assets. Country-specific digital solutions, the data centre in Germany, and other non-current assets are classified as joint assets pursuant to IAS 36, if required, and allocated to those asset CGUs that fall back on such assets using a revenue-based key. If a potential impairment is identified (triggering event), an impairment test is conducted on the concerned asset CGU in accordance with IAS 36 and in line with the principles applicable for intangible assets. In the event that an asset is impaired, the remaining useful life must be adapted accordingly. If the reasons for a previously recognised impairment no longer apply, the concerned assets are written up through profit or loss; the write-back, however, may not exceed the carrying amount which would have been recognised if no impairment had been incurred in earlier periods.

Intangible assets developed as follows:

	2022				2021			
€ mn	Goodwill	Proprietary software	Other intangible assets	Total	Goodwill	Proprietary software	Other intangible assets	Total
Cost								
Balance as at 1 January	**276**	**145**	**160**	**581**	**140**	**134**	**133**	**407**
Additions	0	30	3	**33**	–	31	2	**33**
Transfers	-4	-1	0	**-5**	–	0	0	**0**
Disposals	0	1	2	**3**	0	20	19	**39**
Changes in the basis of consolidation	158	0	34	**192**	134	–	44	**178**
Currency translation differences	-11	-2	-2	**-15**	2	0	0	**2**
Balance as at 31 December	**419**	**171**	**193**	**783**	**276**	**145**	**160**	**581**
Amortisation and impairment losses								
Balance as at 1 January	**41**	**70**	**76**	**187**	**38**	**79**	**83**	**200**
Amortisation and impairment losses	–	18	15	**33**	3	11	11	**25**
Transfers	–	0	0	**0**	–	–	–	**–**
Disposals	0	1	3	**4**	0	20	19	**39**
Changes in the basis of consolidation	–	–	2	**2**	–	–	–	**–**
Currency translation differences	0	0	-1	**-1**	0	0	1	**1**
Balance as at 31 December	**41**	**87**	**89**	**217**	**41**	**70**	**76**	**187**
Carrying amount as at 1 January	**235**	**75**	**84**	**394**	**102**	**55**	**50**	**207**
Carrying amount as at 31 December	**378**	**84**	**104**	**566**	**235**	**75**	**84**	**394**

(49) Property and equipment

€ mn	31 Dec 2022	31 Dec 2021
Land and buildings and construction in progress	210	253
Office furniture and equipment	25	25
Total	**235**	**278**

Property and equipment developed as follows:

	2022			2021		
€ mn	Land and buildings and construction in progress	Office furniture and equipment	Total	Land and buildings and construction in progress	Office furniture and equipment	Total
Cost						
Balance as at 1 January	**368**	**90**	**458**	**360**	**90**	**450**
Additions	13	15	**28**	11	8	**19**
Transfers	0	0	**0**	0	0	**0**
Disposals	51	15	**66**	7	9	**16**
Changes in the basis of consolidation	0	1	**1**	2	1	**3**
Currency translation differences	1	0	**1**	2	0	**2**
Balance as at 31 December	**331**	**91**	**422**	**368**	**90**	**458**
Amortisation and impairment losses						
Balance as at 1 January	**115**	**65**	**180**	**100**	**61**	**161**
Amortisation and impairment losses	18	11	**29**	18	12	**30**
of which: impairment losses	–	–	**–**	–	–	**–**
Write-ups	–	–	**–**	–	0	**0**
Transfers	–	–	**–**	0	–	**0**
Disposals	13	11	**24**	4	8	**12**
Changes in the basis of consolidation	–	1	**1**	–	–	**–**
Currency translation differences	1	0	**1**	1	0	**1**
Balance as at 31 December	**121**	**66**	**187**	**115**	**65**	**180**
Carrying amount as at 1 January	**253**	**25**	**278**	**260**	**29**	**289**
Carrying amount as at 31 December	**210**	**25**	**235**	**253**	**25**	**278**

(50) Income tax assets

Income tax assets in a total amount of € 46 million as at 31 December 2022 (2021: € 66 million) include € 19 million (2021: € 21 million) expected to be realised after a period of more than twelve months.

(51) Deferred tax assets

When recognising deferred taxes, claims and liabilities arising vis-à-vis the same tax authority, which may be netted and paid in one amount, were offset in the amount of € 661 million (2021: € 340 million).

Deferred tax assets were recognised in relation to the following items of the statement of financial position:

€ mn	31 Dec 2022	31 Dec 2021
Financial assets (ac)	162	90
Financial assets (fvoci)	110	1
Financial assets (fvpl)	28	2
Property and equipment	0	0
Other assets	2	0
Financial liabilities (ac)	1	242
Financial liabilities (fvpl)	400	56
Provisions	61	100
Other liabilities	2	–
Tax loss carryforwards	74	17
Deferred tax assets	**840**	**508**

Of the deferred taxes on loss carryforwards, an amount of € 47 million (2021: € 8 million) is attributable to foreign permanent establishments. The existing loss carryforwards may be carried forward for an unlimited period. Deferred taxes on losses carried forward were recognised to the extent that they are expected to be realised within the next five years. Deferred taxes on loss carryforwards also include deferred taxes on interest carryforwards under the interest deduction ceiling, provided such interest carryforwards hold value.

The deferred tax assets not recognised or not subject to valuation adjustments amount to € 68 million (2021: € 77 million). No deferred tax assets were recognised on unlimited tax loss carryforwards of € 309 million (2021: € 352 million) since it is not probable that future taxable profit will be available against which the unused tax loss carryforwards can be utilised.

Deferred tax assets in the amount of € 38 million (2021: € 66 million) were recognised under Other reserves.

(52) Other assets

€ mn	31 Dec 2022	31 Dec 2021
Properties	360	348
Contract assets	19	20
Miscellaneous	95	95
Total	**474**	**463**

In the reporting year, costs for value-enhancing measures were capitalised.

The portion of the unsatisfied performance obligation from IT consulting projects in the amount of € 6 million (2021: € 7 million) is expected to be realised in the amount of € 6 million (2021: € 7 million) in the subsequent year, and in the amount of € 0 million (2021: € 0 million) thereafter. We do not disclose the portion of unsatisfied performance obligations from other contracts since the consideration from the client equals the services provided.

(53) Financial liabilities (ac)

€ mn	31 Dec 2022	31 Dec 2021
Money market and capital market liabilities (ac)	**26,425**	**30,597**
Money market liabilities	5,761	9,501
Promissory note loans	2,573	3,373
Mortgage Pfandbriefe	10,823	10,620
Public-sector Pfandbriefe	1,296	1,734
Other debt securities	5,972	5,369
Other financial liabilities	0	–
Deposits from the housing industry (ac)	**13,115**	**11,717**
Payable on demand	10,180	9,409
Term deposits	2,935	2,308
Liabilities from other transactions (ac)	**96**	**94**
Trade payables	20	19
Other liabilities	76	75
Subordinated liabilities (ac)	**386**	**609**
Total	**40,022**	**43,017**

The changes in subordinated liabilities in the amount of € -223 million (2021: € -330 million) consist of € -177 million (2021: € -300 million) related to cash payments of principal as well as an amount of € -46 million (2021: € -30 million) related to non-cash changes in fair value and changes of accrued interest.

(54) Financial liabilities (fvpl)

€ mn	31 Dec 2022	31 Dec 2021
Negative market value of designated hedging derivatives (fvpl)	**2,183**	**971**
Negative market value of fair value hedges	2,141	947
Negative market value of net investment hedges	42	24
Negative market value of other derivatives (fvpl)	**1,331**	**911**
Negative market value of economic hedging derivatives	639	526
Negative market value of other derivatives	692	385
Total	**3,514**	**1,882**

(55) Non-current liabilities held for sale

Liabilities of € 1 million were due to the agreed management buyout of phi-Consulting GmbH, which was closed in January 2023. The sale is part of Aareon's strategy to boost product profitability.

(56) Provisions

€ mn	31 Dec 2022	31 Dec 2021
Provisions for pensions and similar obligations	158	425
Provisions for unrecognised lending business	4	3
Other provisions	130	130
Total	**292**	**558**

Changes in the discount rate applicable to pensions require a revaluation of the amount of obligations. This is recognised directly in other comprehensive income, under changes in the reserve from defined benefit plans. Provisions for pensions showed a marked decline, due to the strong increase in interest rates and higher funding levels.

A detailed breakdown of the provisions for unrecognised lending business by classes of financial assets is disclosed in Note (65) in the chapter "Notes related to financial instruments".

Provisions for pensions and similar obligations

The pension obligations result mainly from retirement benefit plans maintained at Aareal Bank, Aareon, BauGrund and Westdeutsche Immobilien Servicing (former WestImmo), which are classified as defined contribution plans or defined benefit plans in accordance with IAS 19.

Aareal Bank contributed assets held to cover existing pension obligations into a Contractual Trust Arrangement (CTA). This is to ensure improved insolvency protection of the pension claims as a result of the limited protection provided by the German Pension Guarantee Association (Pensionssicherungsverein; PSVaG). For this purpose, a bilateral trust was agreed between Aareal Bank AG (trustor) and Aareal Pensionsverein e.V. as legally independent third party (trustee). The trustee is registered in the Register of Associations at the Wiesbaden District Court.

The trustee holds in trust the special fund for the trustor (administrative trust). Simultaneously, but senior to the administrative trust, the trustee holds the special fund for all beneficiaries on trust to secure the recorded entitlements (security trust).

The security trust is established in the interest of the beneficiaries by way of a genuine agreement for the benefit of third parties (section 328 (1) of the German Civil Code (Bürgerliches Gesetzbuch – "BGB")). On the basis of this security trust, the beneficiaries may request from the trustee that the trustee holds and manages this special fund pursuant to the regulations of this trust agreement for the purpose of securing the recorded entitlements. Upon the occurrence of an insured event, the beneficiaries may, based on the security trust, request from the trustee that the trustee satisfies their recorded entitlements pursuant to the regulations of this trust agreement out of the special fund.

The Bank is the economic beneficiary of the assets. The assets are managed by HSBC INKA in a special fund under German investment law ("Spezialfonds"). Based on an investment guideline, HSBC INKA takes investment decisions for staff pensions. A joint investment committee was established, comprising staff from HSBC INKA and Aareal Bank. The Bank transfers new assets to be invested to Aareal Pensionsverein e.V. on an annual basis, which in turn acquires additional units in the special fund. The fund manager invests interest income during the course of the year.

The Bank has taken out reinsurance policies for a portion of the benefit entitlements of active members of the Management Board and former Management Board members. These policies were also transferred to Aareal Pensionsverein e.V. on a trust basis. The Bank provides corresponding funds for contribution paid to these policies.

Transferring assets to Aareal Pensionsverein e.V. on the one hand secures benefit entitlements and claims under occupational pension schemes, and on the other hand creates plan assets within the meaning of IAS 19 which may be offset with benefit obligations of the trustor.

Brief description of the material pension plans

DePfa Bank Betriebsvereinbarung dated 14 December 1999 (BV 97)

BV 97 applies for new joiners since 1 January 1997. The following benefits are granted after a waiting period of five pensionable service years: old-age pension after completing the 65th year of age (also after any previous disability), early old-age pension, disability pension until completing the 65th year of age, as well as widow(er)'s pension.

The Bank shall grant its employees a basic pension from own contributions and additional benefits in the form of corresponding individual agreements on deferred compensation. The basic pension for the pensionable service period is calculated based on an annual benefit expense of 3.5 % for portions of the pensionable income below the contribution ceiling and 10 % for portions of pensionable income above the contribution ceiling. The employer contributions thus calculated as well as the contributions from deferred compensation are contributed into a CTA at the end of each financial year. The benefit assets, including any allocated surpluses, bear interest at a rate of at least 4 %. The annual benefit payments are calculated based on an annuitisation of the benefit assets upon occurrence of the insured event, using a fixed annuitisation table.

The pensionable service period is deemed to be the period from completing the 20th year of age to completing the 65th year of age. Pensionable income is the gross remuneration received within one year.

Any actuarial deductions upon claiming old-age pensions before completing the 65th year of age are taken into account through an annuitisation of the benefit assets. The widow(er)'s pension amounts to 60 % of the employee pension. The Bank increases the current benefit payments annually by 1 %; there is no obligation to provide for an inflation adjustment.

Management Board

The four active Management Board members receive their benefits based on individual commitments.

Two individual benefit commitments are aligned to the fixed annual employer contributions and the amounts from deferred compensation, which are paid to the relevant benefit account and bear interest at a rate of 4 %. In the case of disability or death, the existing benefit assets from the employer contributions are increased by the sum total of the amounts that would have been credited in future (up to a maximum contribution period of ten years) for each full calendar year prior to turning 62 or 63. The benefit assets and the assets from deferred compensation are translated into a lifelong old-age or disability pension upon the occurrence of an insured event, using actuarial principles. Annuitisation is based on biometric principles and a notional interest rate of 4 % p. a. and takes into account a guaranteed pension increase of 1% p.a. The widow pension amounts to 60 % of the beneficiary's pension entitlement. The current benefit payments are increased annually by 1 %; there is no obligation to provide for an inflation adjustment. The old-age pension benefits based on one of these individual commitments were secured through reinsurance policies. These reinsurance policies include benefits in the case of disability or death.

The two other individual commitments involve the provision of an annual fixed employer's contribution which is credited to the personal benefit account. The benefit assets bear interest that corresponds to the capital gains generated in the form of a real or virtual financial investment. The investment is made in form of a real investment as part of the Contractual Trust Agreement (CTA) to the extent that the benefit contribution is paid into the CTA established for the Bank as trust assets. To the extent that the benefit contribution is not paid into the CTA's trust assets, the investment is made and the capital gains are determined on a virtual basis so that the result of the virtual investment corresponds to the result of the investment as if the investment had been made entirely in form of a real investment. In the case of disability or death, the existing benefit assets are increased by the sum total of the amounts that would have been credited in future (up to a maximum contribution period of five years) for each full calendar year prior to turning 62. The benefit assets are generally disbursed in form of a one-off payment. The pension for the surviving dependants amounts to 60 % of the beneficiary's pension entitlement. To the extent that the benefits are paid in form of an annuity, the benefits are increased by 1 % each year.

DePfa Bank Dienstvereinbarung dated 30 December 1955 (DePfa 55)

DePfa 55 is a pay-related benefit commitment for new entrants before 31 December 1988. It provides for benefit payments after completing the 65th year of age after a waiting period of five service years and benefits paid in case of occupational incapacity (disability) as well as benefits for surviving dependants, each in form of a monthly annuity.

The amount of the entitlement is based on the following increases: 5 % of the last annual salary for the first five service years each, 2 % of the last annual salary for the next 20 service years each, and 1 % of the last annual salary for any following service year, up to a maximum percentage of 75 % of the last annual salary after 35 service years. The widow(er)'s pension amounts to 60 % of the old-age or disability pension. Benefits paid by social security insurance and VBL/Gerling are charged to the benefit entitlements. DePfa 55 does not include any provision allowing for an early payout of old-age pensions or for an adjustment of current benefit payments.

These commitments are based on final salary. The obligation resulting from the respective benefit commitment is therefore very sensitive to unexpected salary changes.

Current benefits are not subject to a fixed adjustment rate; therefore, the adjustment is made pursuant to section 16 of the German Occupational Pensions Act (BetrAVG). Accordingly, an inflation adjustment has to be made every three years given an appropriate economic situation of the Bank. Changes in inflation and, hence, pension increases have an impact on the benefit volume as regards these commitments.

BauBoden agreement dated 1 July 1968 (BauBoden 68)
This agreement applies to employees after completing their 18th year of age who were employed by the Bank on 1 January 1967 or joined the Bank not later than on 31 December 1983. The following benefits are granted after a waiting period of ten service years: old-age pension after completing the 65th year of age, early old-age pension, (total) occupational incapacity pension as well as widow(er)'s pension.

Benefits consist of an overall pension, comprising the statutory pension insurance scheme, the additional pension insurance scheme at VBL or BVV (which is taken into account), or the group insurance contracts and the bank subsidy. The overall pension amounts to 55 % of the pensionable salary after ten years of service. The overall pension is increased by 1 % of the pensionable salary for any further service year, up to the maximum rate of 75 %. The pensionable salary is the last monthly gross salary received during service.

No actuarial deductions are made upon claiming old-age pensions before completing the 65th year of age. The widow(er)'s pension amounts to 60 % of the bank subsidy. The current pension payments are adjusted pursuant to section 16 of the German Occupational Pensions Act (Betriebsrentengesetz; "BetrAVG").

These commitments are based on final salary. The obligation resulting from the respective benefit commitment is therefore very sensitive to unexpected salary changes.

Current benefits are not subject to a fixed adjustment rate; therefore, the adjustment is made pursuant to section 16 of the German Occupational Pensions Act (BetrAVG). Accordingly, an inflation adjustment has to be made every three years given an appropriate economic situation of the Bank. Changes in inflation and, hence, pension increases have an impact on the benefit volume as regards these commitments.

**BauBoden agreement dated 12 December 1984 (BauBoden 84)
and DePfa Bank Versorgungsordnung dated 28 November 1990 (DePfa 90)**
BauBoden 84 applies to employees who joined the Company after 31 December 1983 and have completed their 20th year of age. DePfa 90 applies to employees who joined the Company after 31 December 1988. The following benefits are granted after a waiting period of ten service years: old-age pension and early old-age pension, (total) occupational incapacity pension as well as widow(er)'s pension.

The benefit entitlements of the employees vest after completing their 65th year of age. The amount of the monthly pension entitlement is calculated for each pensionable service year (up to a maximum of 40 service years) as follows: 0.6 % of pensionable salary up to the contribution ceiling, 2 % of the portion of pensionable salary exceeding the contribution ceiling, with pensionable salary and contribution ceiling being calculated using the average for the last twelve months. Benefits paid by BVV are charged to the benefit entitlements under BauBoden 84.

The Bank does not make any actuarial deductions upon claiming early old-age pensions. The widow(er)'s pension amounts to 60 % of the entitlements to benefit payments. The current pension payments are adjusted pursuant to section 16 of the BetrAVG.

These commitments are based on final salary. The obligation resulting from the respective benefit commitment is therefore very sensitive to unexpected salary changes.

Current benefits are not subject to a fixed adjustment rate; therefore, the adjustment is made pursuant to section 16 of the BetrAVG. Accordingly, an inflation adjustment has to be made every three years given an appropriate economic situation of the Bank. Changes in inflation and, hence, pension increases have an impact on the benefit volume as regards these commitments.

AHB – General works agreement on additional pension benefits (company pension scheme) of former Corealcredit
The pension benefits to former employees of Allgemeine Hypothekenbank AG, whose employment relationship began prior to 1 January 1994, are governed by the additional benefit arrangement dated 29 August 1995 on the basis of the complementing general works agreement dated 7 March 1995.

This benefit commitment is based on aggregate benefits derived from pension benefits for civil servants. After a waiting period of five years of service, the aggregate benefit rate is 50 % of pensionable income. For each year after completing the 37th year of age, the aggregate benefit rate increases by 1% of pensionable income, up to a maximum 75 % of pensionable income. The entitlement amounts to at least 65 % of pensionable income in the case of (total) occupational incapacity and 75 % of pensionable income in the case of workplace accidents. Pensionable income is the annual income (calculated on the basis of 14 monthly salaries), divided by 12.

The pension benefits of the statutory pension insurance and the BVV, which are based on mandatory contributions, are taken into account in the pension determined as described. To that extent, the benefit obligation directly depends on the development of the level of pensions from the statutory pension insurance on the one hand and from the BVV on the other.

As a result of the German Pension Reform Act of 1992 and the associated cuts in statutory pension insurance, the pension scheme was restructured in 1995. The main pillar of the new structure is the limitation of the Bank's deficiency guarantee for the declining level of statutory pensions due to deduction factors applied at early retirement (Rentenzugangsfaktor) and the lower adjustment of the pension value. Accordingly, the Bank continues to assume the deficiency guarantee on a pro-rata basis for the periods of service until the restructuring on 31 December 1995 in relation to the deduction factors applied at early retirement and for the reduced level of the current pension value (net adjustment factor). The reduction in the level of statutory pensions that occurred during the service periods from the restructuring date until retirement is taken into account at the expense of the beneficiary.

From the start of retirement, the AHB pension is decoupled from the development of the statutory pension and the BVV pension already prior to the restructuring since only the AHB pension is adjusted for inflation on an annual basis.

Accordingly, the obligation for the pension commitment during the qualification period is, on the one hand, directly dependent upon the development of the statutory pension and the BVV pension. On the other hand, it is fully dependent upon salary development for all years of service, even including past service. The volume of the obligation also depends upon the fluctuation of inflation and hence pension increases.

Rheinboden Hypothekenbank AG – pension scheme in the version dated 1 December 1991 of former Corealcredit
The former employees of Rheinboden Hypothekenbank AG are entitled to old-age and disability pensions as well as surviving dependant's benefits in accordance with the pension schemes in the version dated 1 December 1991.

The monthly benefits for employees who commenced service prior to 1 October 1978 amount to 5 % of pensionable remuneration (most recent monthly salary based on collective or individual agreements) after ten service years and increase by 0.5 % of pensionable remuneration for each service year, up to 14 % of pensionable remuneration after 15 service years. The monthly benefit entitlement increases by 0.3 % of pensionable remuneration for any additional service years, up to a maximum of 20 %. The BVV benefits are taken into account in such entitlement to the extent that these are based on employer contributions.

The benefits for employees who commenced service after 30 September 1978 amount to 0.15 % of pensionable remuneration up to the contribution ceiling as well as 1.5 % of pensionable remuneration above the contribution ceiling for each year of service between the 25th and 65th year of age. The maximum number of recognisable service years is 35.

The old-age pension under the Rheinboden pension schemes is paid after completing the 65th year of age or upon commencement of old-age pension under the statutory pension insurance scheme (full pension). In case of early retirement, the benefits are subject to deductions of 0.3 % per month of early retirement prior to the age of 65 as a partial compensation for the additional costs associated with early retirement. The surviving dependant's benefits amount to 60 % of the employee's pension entitlement for widow(er)s as well as 15 % for half-orphans and 20 % for orphans, however, in aggregate not exceeding the amount of the employee's pension entitlement.

Supplementary individual contractual arrangements were agreed with individual pensioners and leavers with vested benefits for the purpose of the transition from the old to the new Rheinboden pension scheme and the application of the BVV benefits.

In addition, individual contractual commitments apply to former management board members and general managers – currently pensioners and one leaver with vested benefits.

The adjustment of current pensions on the basis of the Rheinboden commitments is performed on the basis of the inflation allowance set out in section 16 of the German Occupational Pensions Act (BetrAVG), with the exception of a small group of approximately ten pensioners where adjustment is made pursuant to the collective agreement for banks.

WestImmo – Pension fund rules dated 1 October 1995

The pension fund rules dated 1 October 1995 represent a defined contribution scheme. The following benefits are paid after a waiting period of five year of service: old-age pension, early old-age pension, (total) occupational incapacity pension as well as widow(er)'s and orphan's pension.

The amount of the old-age pension, the early old-age pension and the (total) occupational incapacity pension is calculated based on the sum of the pension components earned during the pensionable service period. If the pensionable service period exceeds 40 years, the monthly pension is calculated based on the sum of the highest 40 pension components earned during the pensionable service period. The amount of one pension component is derived from multiplying the reference contribution (since 2021: € 311), the personal earnings relation (relation between pensionable income and contribution ceiling of the German statutory pension insurance; earnings components above the contribution ceiling are weighted with a factor of 3.75) and the annuitisation factor in the relevant age pursuant to the annuitisation table. The amount of the early old-age pension is reduced by 0.5 % for each month in which annuity is paid prior to completing the 65th year of age. The widow(er)'s pension entitlement amounts to 60 %.

If necessary, the determination of the amount of pension obligations is based on the following actuarial assumptions applied consistently throughout the Group:

	31 Dec 2022	31 Dec 2021
Calculation method	Projected unit credit method	Projected unit credit method
Calculation basis	Actuarial tables issued by K. Heubeck in 2018	Actuarial tables issued by K. Heubeck in 2018
Actuarial assumptions (in %)		
Interest rate used for valuation	3.68	1.17
Development of salaries	2.25	2.00
Pension increase	1.79	1.47
Rate of inflation	2.25	1.75
Staff turnover rate	3.00	3.00

Development of net pension liabilities:

€ mn	Present value of pension obligations	Fair value of plan assets	Net pension liability
Balance as at 1 January 2022	**539**	**-114**	**425**
Pension expense	**19**	**-3**	**16**
Current service cost	13	–	13
Net interest cost	6	-3	3
Payments	**-11**	**-184**	**-195**
Pension benefits paid	-15	2	-13
Employer's contributions	–	-182	-182
Contributions made by beneficiaries of defined benefit plans	4	-4	0
Remeasurements	**-176**	**88**	**-88**
due to experience adjustments	-1	–	-1
due to changes in financial assumptions	-175	–	-175
due to changes in demographic assumptions	–	–	–
Difference between actual return and return calculated using an internal rate of interest (plan assets)	–	88	88
Changes in the basis of consolidation	**–**	**–**	**–**
Balance as at 31 December 2022	**371**	**-213**	**158**

€ mn	Present value of pension obligations	Fair value of plan assets	Net pension liability
Balance as at 1 January 2021	**580**	**-106**	**474**
Pension expense	**21**	**-1**	**20**
Current service cost	17	–	17
Net interest cost	4	-1	3
Payments	**-17**	**-3**	**-20**
Pension benefits paid	-21	8	-13
Employer's contributions	–	-7	-7
Contributions made by beneficiaries of defined benefit plans	4	-4	0
Remeasurements	**-46**	**-4**	**-50**
due to experience adjustments	2	–	2
due to changes in financial assumptions	-48	–	-48
due to changes in demographic assumptions	0	–	0
Difference between actual return and return calculated using an internal rate of interest (plan assets)	–	-4	-4
Changes in the basis of consolidation	**1**	**–**	**1**
Balance as at 31 December 2021	**539**	**-114**	**425**

The weighted duration of pension liabilities is 15.5 years as at 31 December 2022 (2021: 19.2 years).

Expected maturities of the defined benefit obligation (DBO):

€ mn	31 Dec 2022	31 Dec 2021
Up to 1 year	16	15
Between 1 year and 5 years	67	65
Between 5 years and 10 years	93	88
Total	**176**	**168**

Plan contributions in the amount of € 5 million (2022: € 13 million) are expected to be paid in the financial year 2023.

Sensitivity of the defined benefit obligation (DBO) compared to the central actuarial assumptions

Based on the qualitative plan description, the valuation parameters significant for calculating the amount of the obligation were derived and corresponding calculations were made as regards sensitivity:

		Defined benefit obligation 2022	Change	Defined benefit obligation 2021	Change
		€ mn	%	€ mn	%
Present value of obligations		**371**		**539**	
Interest rate used for valuation	Increase by 1.0 percentage points	322	-13	449	-17
	Decrease by 1.0 percentage points	434	17	656	22
Development of salaries	Increase by 0.5 percentage points	377	2	549	2
	Decrease by 0.5 percentage points	365	-2	529	-2
Pension increase	Increase by 0.25 percentage points	376	1	546	1
	Decrease by 0.25 percentage points	367	-1	531	-1
Life expectancy	Increase by 1 year	387	4	567	5
	Decrease by 1 year	355	-4	510	-5

The sensitivity analysis takes into account, in each case, the change of an assumption, while the other assumptions remain unchanged compared to the original calculation, i.e. any potential correlation effects between the individual assumptions are not taken into consideration.

Plan assets can be broken down as follows:

€ mn	31 Dec 2022	31 Dec 2021
Cash	0	0
Investment funds including derivatives	191	82
Reinsurance	23	32
Total	**214**	**114**

Apart from the usual actuarial risks, the risks associated with defined benefit obligations primarily relate to financial risks in connection with plan assets. Amongst others, these may include counterparty credit risks and market price risks. These risks are taken into account in the risk management of Aareal Bank Group. The measurement of investment funds has to be allocated to Level 2 of the fair value hierarchy.

Other provisions

Other provisions developed as follows:

€ mn	Provisions for staff expenses and non-staff operating costs	Provisions for legal and tax risks	Other provisions	Total
Carrying amount as at 1 Jan 2022	**103**	**3**	**24**	**130**
Additions	61	0	1	**62**
Utilisation	53	0	0	**53**
Reversals	5	–	3	**8**
Interest	-3	–	0	**-3**
Reclassifications	0	–	0	**0**
Changes in the basis of consolidation	0	–	1	**1**
Exchange rate fluctuations	1	–	0	**1**
Carrying amount as at 31 Dec 2022	**104**	**3**	**23**	**130**

€ mn	Provisions for staff expenses and non-staff operating costs	Provisions for legal and tax risks	Other provisions	Total
Carrying amount as at 1 Jan 2021	**89**	**2**	**14**	**105**
Additions	57	1	13	**71**
Utilisation	39	0	2	**41**
Reversals	6	0	1	**7**
Interest	0	–	0	**0**
Reclassifications	0	–	–	**0**
Changes in the basis of consolidation	–	–	–	**–**
Exchange rate fluctuations	2	–	0	**2**
Carrying amount as at 31 Dec 2021	**103**	**3**	**24**	**130**

Other provisions of € 130 million include € 31 million expected to be realised after a period exceeding twelve months (2021: € 27 million).

Provisions for staff expenses and non-staff operating costs refer to personnel provisions in the amount of € 75 million (2021: € 74 million) and provisions for non-staff operating costs in the amount of € 29 million (2021: € 29 million). Provisions for staff expenses consist of, among other things, provisions for bonuses (cash and share-based), partial retirement, severance payments and existing working hours accounts; Provisions for staff expenses include € 3 million in provisions for severance payments and for partial retirement (2021: € 4 million). Provisions for non-staff operating expenses mainly include provisions for professional and legal advice.

(57) Income tax liabilities

Income tax liabilities in a total amount of € 76 million as at 31 December 2022 (2021: € 17 million) include € 7 million (2021: € 4 million) expected to be realised after a period of more than twelve months.

(58) Deferred tax liabilities

When recognising deferred taxes, claims and liabilities arising vis-à-vis the same tax authority, which may be netted and paid in one amount, were offset in the amount of € 661 million (2021: € 340 million).

Share price gains may arise in the amount of approximately € 47 million may arise in connection with a special investment fund which would be taxable upon disposal of that special fund. However, since there are no plans to dispose of this special fund, no deferred tax liabilities need to be recognised.

Deferred tax liabilities were recognised in relation to the following items of the statement of financial position:

€ mn	31 Dec 2022	31 Dec 2021
Financial assets (ac)	67	325
Financial assets (fvoci)	7	30
Financial assets (fvpl)	–	1
Intangible assets	24	20
Property and equipment	16	10
Other assets	15	6
Financial liabilities (ac)	576	2
Provisions	13	–
Other liabilities	0	2
Deferred tax liabilities	**718**	**396**

(59) Other liabilities

€ mn	31 Dec 2022	31 Dec 2021
Lease liabilities	44	81
Deferred income	1	3
Liabilities from other taxes	23	21
Contract liabilities	25	24
Miscellaneous	18	8
Total	**111**	**137**

An amount of € 20 million (2021: € 17 million) of the contract liabilities was recorded in profit or loss in the current reporting period.

(60) Equity

€ mn	31 Dec 2022	31 Dec 2021
Subscribed capital	180	180
Capital reserves	721	721
Retained earnings	2,076	1,937
AT1 bond	300	300
Other reserves		
Reserve from remeasurements of defined benefit plans	-73	-133
Reserve from the measurement of equity instruments (fvoci)	-4	-3
Reserve from the measurement of debt instruments (fvoci)	4	16
Reserve from foreign currency basis spreads	-8	-23
Currency translation reserves	-7	0
Non-controlling interests	69	66
Total	**3,258**	**3,061**

Equity increased due to the retention of the originally planned dividend and consolidated net income for 2022. In addition, a decline in the negative amount of the reserve from remeasurements of defined benefit plans was seen due to the strong increase in interest rates.

The item "Reserve from the measurement of debt instruments (fvoci)" includes loss allowance of € 1 million (2021: € 0 million).

Subscribed capital

Aareal Bank AG's subscribed capital amounted to € 180 million as at the reporting date (2021: € 180 million). It is divided into 59,857,221 notional fully-paid no-par value shares ("unit shares") with a notional value of € 3 per share. The shares are bearer shares. Each share carries one vote. There are no pre-emptive rights or constraints with respect to dividend payouts.

Treasury shares

The General Meeting authorised the Management Board by way of a resolution dated 27 May 2020, pursuant to section 71 (1) no. 7 of the German Public Limited Companies Act (Aktiengesetz – "AktG"), to purchase and sell treasury shares for the purposes of securities trading, at a price not falling below or exceeding the average closing price of the Company's share in Xetra trading (or a comparable successor system) during the three trading days on the Frankfurt Stock Exchange prior to the relevant purchase or prior to assuming a purchase obligation by more than 10 %. This authorisation expires on 26 May 2025. The volume of shares acquired for this purpose must not exceed 5 % of the share capital of Aareal Bank AG at the end of any given day.

Furthermore, the Management Board was authorised by means of a resolution of the General Meeting held on 27 May 2020, pursuant to section 71 (1) no. 8 of the AktG, to purchase treasury shares in a volume of up to 10 % of the share capital for any permitted purposes. This authorisation expires on 26 May 2025. Shares may be acquired via the stock exchange or by means of a public offer to buy directed at all shareholders, and at purchase prices stipulated in the authorisation and based on the prevailing market price of the Company's shares. This authorisation may be exercised – also by the direct or indirect subsidiaries of Aareal Bank AG – in full or in part, on one or more occasions.

The shares acquired in accordance with this or an earlier authorisation may be sold, subject to Supervisory Board approval, outside the stock exchange and without an offer directed at all shareholders, subject to the exclusion of shareholders' pre-emptive rights, when the shares sold do not exceed 10 % of the share capital and the issue price is not significantly below the prevailing stock exchange price or in the event of a sale against contributions in kind, or when the shares sold are used to service rights from convertible bonds or bonds with warrants. This also applies to shares issued by subsidiaries. The treasury shares may also be given to the holders of conversion or option rights in lieu of new shares from a contingent capital increase. The shares can also be withdrawn, without such a withdrawal or its implementation requiring a further resolution by the General Meeting.

The Management Board was also authorised to effect the acquisition of treasury shares by using put or call options. Any acquisition of shares using derivatives is limited to 5 % of share capital. In addition, any acquisition of shares shall count towards the 10 % threshold for the authorisation for the acquisition of treasury shares. Where treasury shares are acquired using equity derivatives, the shareholders' right to enter into such derivative transactions with the Company is excluded in analogous application of section 186 (3) sentence 4 of the AktG.

Authorised capital

Aareal Bank has authorised capital pursuant to the resolution by the Annual General Meeting held on 31 August 2022. Accordingly, the Management Board is authorised to increase, on one or more occasions, the Company's share capital by up to a maximum total amount of € 35,914,329 (Authorised Capital 2022) by issuance of new no-par value bearer shares for contribution in cash or in kind, subject to the approval of the Supervisory Board; this authority will expire on 30 August 2027. In the event of a capital increase against cash contributions, the shareholders shall be granted a subscription right, unless the Management Board exercises its authority to exclude shareholder's pre-emptive subscription rights. The Management Board may exclude shareholders' subscription rights, subject to approval by the Supervisory Board and the conditions set out below:

a) In the event of a capital increase against cash contributions, provided that the issue price of the new shares is not significantly below the prevailing stock exchange price of the Company's listed shares at the time of the final determination of the issue price. However, this authorisation shall be subject to the proviso that the aggregate value of shares sold to the exclusion of shareholders' subscription rights, in accordance with section 203 (1) and (2) and section 186 (3) sentence 4 of the AktG, shall not exceed 10 % of the issued share capital at the time said authorisation comes into effect or – if lower – at the time it is exercised. Any shares that were issued or sold during the term and prior to the exercising of said authorisation, in direct or analogous application of section 186 (3) sentence 4 of the AktG, shall count towards the above threshold of 10 % of the issued share capital. Said ten-percent threshold shall also include shares the issuance of which is required under the terms of debt securities with embedded conversion or option rights on shares issued pursuant to section 186 (3) sentence 4 of the AktG (excluding shareholders' subscription rights), which were (or may be) issued during the validity of this authorisation;

b) for fractional amounts arising from the determination of the applicable subscription ratio;

c) where this is necessary to grant subscription rights to the holders of bonds with warrants or convertible bonds issued (or to be issued) by the Company or its affiliated companies, which subscription rights are required to entitle these holders to the same extent as they would have been entitled to upon exercising their conversion or option rights or upon performance of a conversion obligation, if any, thus protecting such holders against dilution;

d) for an amount of up to € 4,000,000, to offer employees (of the Company or its affiliated companies) shares for subscription;

e) in the event of a capital increase against contributions in kind for the purpose of acquiring companies, divisions of companies or interests in companies or other assets.

The above authorisation for the exclusion of shareholders' subscription rights in the case of capital increases against contributions in cash or in kind is limited to a total of 10 % of the share capital; this limit may be exceeded neither at the time said authorisation comes into effect, nor at the time it is exercised. The above-mentioned 10 % threshold shall furthermore include treasury shares which are sold to the exclusion of shareholders' subscription rights during the validity of this authorisation as well as such shares which are issued to service debt securities, provided that the debt securities were issued to the exclusion of shareholders' subscription rights during the validity of this authorisation due to the authorisation under agenda item 6 of the Annual General Meeting on 22 May 2019. When a new authorisation for the exclusion of shareholders' subscription rights is resolved after the reduction and said new authorisation comes into effect, the upper limit, reduced in accordance with the above-mentioned requirements, shall be increased again to the amount permitted by the new authorisation, with a maximum total of 10 % of the share capital in accordance with the above-mentioned requirements.

The authorised capital has not yet been utilised.

Conditional capital

Based on a resolution passed by the General Meeting on 22 May 2019, the Management Board was authorised to issue, on one or more occasions until 21 May 2024, profit-participation certificates with a limited or unlimited term for contribution in cash or in kind of up to € 900,000,000. The profit-participation certificates must be constructed in such a way that the funds paid for them after issuance can be recognised as banking regulatory capital pursuant to the legal regulations applicable as at the time of issuance. Profit-participation certificates and other hybrid promissory note loans to be issued according to this authorisation shall be connected with conversion rights, entitling or compelling, in accordance with their respective conditions, the holder to purchase Company shares. Conversion rights or obligations may be attached exclusively to bearer no-par value shares of the Company following the reduction of the existing 2019 Conditional Capital resolved upon at the 2022 Annual General Meeting, and are limited to a maximum amount of € 35,914,329 of the Company's share capital. The sum of shares to be issued so as to service conversion or option rights or conversion obligations from profit-participation certificates or hybrid promissory note loans issued pursuant to this authorisation, including shares issued during validity of this authorisation as a result of another authorisation (especially from the Authorised Capital 2017), may not exceed an amount of € 71,828,664.00 (which equals approx. 40 % of the current share capital). Subject to the approval of the Supervisory Board, the Management Board may exclude shareholders' pre-emptive rights in relation to the profit-participation rights in certain cases.

Accordingly, the Company's share capital is subject to a conditional capital increase not exceeding € 35,914,329 by issuance of up to 11,971,443 new no-par value bearer shares ("Conditional Capital 2019"). The conditional capital increase shall be implemented only insofar as (i) the holders of convertible bonds issued by the Company (or by an enterprise in which the Company either directly or indirectly holds a majority interest) until 21 May 2024 on the basis of the Annual General Meeting's authorisation resolution of 22 May 2019 exercise their conversion rights from these convertible bonds or (ii) the holders of convertible bonds issued by the Company (or by an enterprise in which the Company either directly or indirectly holds a majority interest) until 21 May 2024 on the basis of the Annual General Meeting's authorisation resolution of 22 May 2019, with such holders being obliged to exercise those rights, fulfil their obligation or (iii) the Company makes use of alternative performance; insofar as treasury shares are not used to service the rights or, in the aforementioned cases (i) and (ii), no cash compensation is granted. The new shares shall be entitled to a share in the profits from the beginning of the financial year in which they come into existence, through the exercise of conversion rights or the fulfilment of conversion obligations. The Management Board is authorised to determine the details of the conditional capital increase.

To date, the Conditional Capital has not yet been utilised.

Capital reserves

The capital reserves contain premiums received upon the issuance of shares. Costs incurred within the framework of a capital increase reduce capital reserves.

Retained earnings

Retained earnings are comprised of statutory reserves (pursuant to section 150 of the AktG) of € 5 million (2021: € 5 million) and of other retained earnings of € 2,072 million (2021: € 1,932 million).

Additional Tier 1 bond (AT1 bond)

On 13 November 2014, the Management Board issued notes in an aggregate nominal amount of € 300 million with a denomination of €200,000 and an initial interest rate of 7.625 % p.a., based on the authorisation granted by the Annual General Meeting on 21 May 2014.

The notes bore interest of 7.625 % p.a. from the interest commencement date to 30 April 2020. The rate of interest for any interest period commencing on or after 30 April 2020 shall be equal to the reference rate (one-year EUR swap rate) determined on the relevant interest determination date plus a margin of 7.18 % p.a.

The notes constitute unsecured and subordinated obligations of the issuer.

Upon the occurrence of a trigger event, the redemption amount and the principal amount of each note shall be reduced by the amount of the relevant write-down. The write-down shall be effected pro rata with all other Additional Tier 1 instruments within the meaning of the CRR, the terms of which provide for a write-down upon the occurrence of the trigger event. A trigger event occurs if the Common Equity Tier 1 capital ratio, pursuant to Article 92 (1) (a) CRR or a successor provision, and determined on a consolidated basis, falls below 7.0 %. After a write-down has been effected, the principal amount and the redemption amount of each note, unless previously redeemed or repurchased and cancelled, may be written up in each of the financial years of the issuer subsequent to such write-down until the full initial principal amount has been reached.

The notes may be redeemed, in whole but not in part, at any time at the option of the issuer, subject to prior consent of the competent supervisory authority, upon not less than 30 and not more than 60 days' prior notice of redemption at their redemption amount (taking into account a potential write-down) together with interest accrued until the redemption date (to the extent that interest payment is not cancelled or ruled out in accordance with the terms and conditions of the notes), when the tax or regulatory reasons set out in the terms and conditions of the notes apply. The issuer may also redeem the notes, in whole but not in part, at any time, subject to the prior consent of the competent supervisory authority, upon not less than 30 days' notice of redemption for the first time with effect as at 30 April 2020 and, thereafter, with effect as at each interest payment date at their redemption amount together with interest (if any) accrued to the redemption date.

Distributions

Consistent with its strategy, Aareal Bank does not plan to distribute dividends in 2023 for the 2022 financial year. At the Annual General Meeting held on 31 August 2022, it already had been resolved not to pay dividends in 2022.

The Management Board proposes to the Annual General Meeting that the net retained profit of € 61,054,365.42 for the 2022 financial year, as reported under the German Commercial Code (HGB), be carried forward.

In addition, on 30 April 2023, the Management Board will resolve on a distribution in relation to the AT1 instruments, pursuant to the terms and conditions of the notes.

Notes to Financial Instruments

A detailed description of the system in place at Aareal Bank Group to measure, limit, and manage risks throughout Aareal Bank Group is presented in the Risk Report as part of the Group Management Report. The disclosures on the description and the extent of the risks arising from financial instruments in accordance with IFRS 7 are included (in part) in the Risk Report.

(61) Net gains/losses of financial instruments by category

The following overview shows the net gains or net losses from financial instruments in accordance with the classification and measurement categories of financial assets and liabilities (from which the results are generated):

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net gain or loss from financial assets (ac)	-195	-115
Net gain or loss from financial liabilities (ac)	-21	3
Net gain or loss from financial assets (fvoci) recognised in other comprehensive income	-8	6
Net gain or loss from financial assets (fvoci) transferred to the income statement	9	0
Net gain or loss from equity instruments (fvoci)	-1	1
Net gain or loss from financial instruments (fvpl)	26	-30
Net gain or loss from financial guarantee contracts and loan commitments	-1	1

The net results include measurement gains and losses, realised gains/losses on disposal, subsequent recoveries on loans and advances previously written off in relation to all financial instruments of the respective measurement category. The net gain or loss from financial instruments (fvpl) also comprises the net gain or loss from currency translation.

The hedge result from hedged items is aggregated with the hedge result from derivative hedging instruments in one line item, and amounted to € -2 million (2021: € -5 million) in the year under review. Moreover, the change in the reserve from foreign-currency basis spreads amounted to € 22 million (2021: € 4 million).

(62) Fair value hierarchy in accordance with IFRS 13

The carrying amounts of financial instruments held by Aareal Bank Group which are reported at fair value in the statement of financial position are presented in the following table according to the three-tier fair value hierarchy pursuant to IFRS 13.72 et seq. The presentation is made for each class of financial instrument.

31 December 2022

€ mn	Total fair value	Fair value level 1	Fair value level 2	Fair value level 3
Financial assets (fvoci)	**3,552**	**2,162**	**1,388**	**2**
Money market and capital market receivables (fvoci)	3,550	2,162	1,388	–
Equity instruments (fvoci)	2	–	0	2
Financial assets (fvpl)	**2,258**	**0**	**1,826**	**432**
Loan receivables (fvpl)	427	–	–	427
Money market and capital market receivables (fvpl)	5	0	–	5
Positive market value of designated hedging derivatives (fvpl)	1,104	–	1,104	–
Positive market value of other derivatives (fvpl)	722	–	722	–
Financial liabilities (fvpl)	**3,514**	**–**	**3,514**	**–**
Negative market value of designated hedging derivatives (fvpl)	2,183	–	2,183	–
Negative market value of other derivatives (fvpl)	1,331	–	1,331	–

As at year-end, € 1,185 million (2021: € 353 million) in financial assets (fvoci) were transferred from Level 1 to Level 2, and € 29 million (2021: € – million) were transferred from Level 2 to Level 1.

31 December 2021

€ mn	Total fair value	Fair value level 1	Fair value level 2	Fair value level 3
Financial assets (fvoci)	**3,753**	**3,365**	**386**	**2**
Money market and capital market receivables (fvoci)	3,749	3,365	384	–
Equity instruments (fvoci)	4	–	2	2
Financial assets (fvpl)	**1,734**	**0**	**1,132**	**602**
Loan receivables (fvpl)	598	–	–	598
Money market and capital market receivables (fvpl)	4	0	–	4
Positive market value of designated hedging derivatives (fvpl)	900	–	900	–
Positive market value of other derivatives (fvpl)	232	–	232	–
Financial liabilities (fvpl)	**1,882**	**–**	**1,882**	**–**
Negative market value of designated hedging derivatives (fvpl)	971	–	971	–
Negative market value of other derivatives (fvpl)	911	–	911	–

The fair values of loan receivables recognised at fair value in the statement of financial position that are assigned to Level 3 of the fair value hierarchy developed as follows during the period under review:

Loan receivables (fvpl)

€ mn	2022	2021
Fair value as at 1 January	**598**	**856**
Change in measurement	**-24**	**-29**
Portfolio changes		
Additions	84	85
Derecognition	231	314
Deferred interest	0	0
Fair value as at 31 December	**427**	**598**

Receivables held in the Bank's portfolio contributed € -29 million to the net gain or loss from loan receivables (fvpl) (2021: € -32 million). The net gain or loss from loan receivables (fvpl) is reported in the net gain or loss from financial instruments (fvpl).

Regarding loan receivables (fvpl), the add-ons for risks specific to the counterparty represent the material input parameter not observable in the market. In addition, transactions-specific parameters such as liquidity spread and equity and processing costs are taken into account in measurement. Regarding the non-defaulted loans, an increase/decrease by 1 % would lead to a decrease/increase of the fair value by approximately € 5 million (2021: approximately € 10 million).

The fair values of financial instruments held by Aareal Bank Group which are reported at amortised cost in the statement of financial position are presented in the following table according to the three-tier fair value hierarchy pursuant to IFRS 13.72 et seq. The presentation is made for each class of financial instrument:

31 December 2022

€ mn	Total fair value	Fair value level 1	Fair value level 2	Fair value level 3
Financial assets (ac)	**39,302**	**353**	**9,931**	**29,018**
Cash funds (ac)	5,424	–	5,424	–
Loan receivables (ac)	28,959	–	1	28,958
Money market and capital market receivables (ac)	4,822	353	4,469	–
Receivables from other transactions (ac)	97	–	37	60
Financial liabilities (ac)	**39,746**	**6,277**	**33,376**	**93**
Money market and capital market liabilities (ac)	26,138	6,277	19,840	21
Deposits from the housing industry (ac)	13,115	–	13,115	–
Liabilities from other transactions (ac)	96	–	24	72
Subordinated liabilities (ac)	397	–	397	–

As at year-end, € 705 million (2021: € 807 million) in financial assets (ac) were transferred from Level 1 to Level 2, and € 6 million (2021: € – million) were transferred from Level 2 to Level 1.

Financial liabilities (ac) of € 3,566 million (2021: € – million) were transferred from Level 1 to Level 2; none (2021: € 6,170 million) were transferred from Level 2 to Level 1.

31 December 2021

€ mn	Total fair value	Fair value level 1	Fair value level 2	Fair value level 3
Financial assets (ac)	**41,960**	**1,879**	**10,829**	**29,252**
Cash funds (ac)	6,942	–	6,942	–
Loan receivables (ac)	29,100	–	0	29,100
Money market and capital market receivables (ac)	5,836	1,879	3,852	105
Receivables from other transactions (ac)	82	–	35	47
Financial liabilities (ac)	**43,242**	**7,692**	**35,431**	**119**
Money market and capital market liabilities (ac)	30,782	7,692	23,062	28
Deposits from the housing industry (ac)	11,717	–	11,717	–
Liabilities from other transactions (ac)	94	–	3	91
Subordinated liabilities (ac)	649	–	649	–

(63) Comparison of carrying amounts and fair values of financial instruments

The fair values of financial instruments are compared with their carrying amounts (including loss allowance) in the following table. The presentation is made for each class of financial instrument:

€ mn	31 Dec 2022 Carrying amount	31 Dec 2022 Fair Value	31 Dec 2021 Carrying amount	31 Dec 2021 Fair Value
Financial assets (ac)	**40,000**	**39,302**	**41,853**	**41,960**
Cash funds (ac)	5,424	5,424	6,942	6,942
Loan receivables (ac)	29,463	28,959	28,948	29,100
Money market and capital market receivables (ac)	5,016	4,822	5,881	5,836
Receivables from other transactions (ac)	97	97	82	82
Financial assets (fvoci)	**3,552**	**3,552**	**3,753**	**3,753**
Money market and capital market receivables (fvoci)	3,550	3,550	3,749	3,749
Equity instruments (fvoci)	2	2	4	4
Financial assets (fvpl)	**2,258**	**2,258**	**1,734**	**1,734**
Loan receivables (fvpl)	427	427	598	598
Money market and capital market receivables (fvpl)	5	5	4	4
Positive market value of designated hedging derivatives (fvpl)	1,104	1,104	900	900
Positive market value of other derivatives (fvpl)	722	722	232	232
Financial liabilities (ac)	**40,022**	**39,746**	**43,017**	**43,242**
Money market and capital market liabilities (ac)	26,425	26,138	30,597	30,782
Deposits from the housing industry (ac)	13,115	13,115	11,717	11,717
Liabilities from other transactions (ac)	96	96	94	94
Subordinated liabilities (ac)	386	397	609	649
Financial liabilities (fvpl)	**3,514**	**3,514**	**1,882**	**1,882**
Negative market value of designated hedging derivatives (fvpl)	2,183	2,183	971	971
Negative market value of other derivatives (fvpl)	1,331	1,331	911	911

(64) Financial instruments that have not yet been switched to an alternative benchmark rate

The following table presents the nominal amounts for derivative and non-derivative financial instruments for which no official cessation effective date has been communicated and/or for which no contractual arrangements for transition have been made. Aareal Bank has become an adhering party to the ISDA protocol and is gradually concluding so-called IBOR Supplemental Agreements to the German Master Agreement for Financial Derivatives Transactions (Deutscher Rahmenvertrag für Finanztermingeschäfte) on a bilateral basis with the counterparties. In the case of derivatives, the presentation is made per cash flow leg:

2022

€ mn	Non-derivative financial assets	Non-derivative financial liabilities[3]	Derivative financial assets	Derivative financial liabilities
EURIBOR[1]	6,106	549	26,343	35,959
USD LIBOR	3,795	–	–	–
CAD CDOR	177	–	1,207	1,336
SEK STIBOR[1]	245	42	843	1,109
DKK CIBOR[1]	168	–	353	407
GBP LIBOR[2]	2	–	–	–
Total	**10,493**	**591**	**28,746**	**38,811**

[1] cessation effective date not yet announced
[2] one defaulted loan
[3] including AT1 bond

2021

€ mn	Non-derivative financial assets	Non-derivative financial liabilities[3]	Derivative financial assets	Derivative financial liabilities
EURIBOR[1]	6,558	764	29,371	23,429
USD LIBOR	6,830	–	–	–
CAD CDOR	197	–	1,217	1,352
SEK STIBOR	264	3	787	1,016
DKK CIBOR	78	–	99	130
AUD BBSW[1]	461	–	139	404
GBP LIBOR[2]	171	–	–	–
Total	**14,559**	**767**	**31,613**	**26,331**

[1] cessation effective date not announced as at year-end closing 2021
[2] one syndicated financing (changeover in January 2022) and two defaulted loans
[3] including AT1 bond

The effects of the IBOR reform are analysed and monitored, and any resulting new requirements are implemented, as part of a separate project. The transition of collateral agreements and of discounting OTC derivatives was implemented on a case-by-case basis until 2021 in accordance with the bilateral agreements between the counterparties. Any existing hedging relationships did not have to be discontinued.

The necessary adjustments for new business were made in 2021 to account for the new benchmark interest rates; corresponding transactions were concluded. The adjustments referred to the currencies EUR (€STR), GBP (SONIA), USD (SOFR) and CHF (SARON). In 2022, preparations necessary for the introduction of the Canadian risk-free rate CORRA commenced.

The existing transactions will be changed on a currency-by-currency basis. Transactions based on EONIA interest and CHF or GBP LIBOR, respectively, were modified, except for one defaulted loan. The current modification of transactions based on USD LIBOR interest has to be completed by 30 June 2023. This was partly implemented using the practical relief applicable to the accounting treatment for modifications. The modification was made using prevailing market conditions; there were no material effects from transition. Such effects are neither expected from further transition.

The new yield curves are taken into account as part of the risk management strategy and integrated into risk management so that transactions based on new reference interest rates can be appropriately assessed and managed. Apart from the major market price risks (interest rate and basis risks), additional risks such as process, legal and documentation risks are addressed and implemented within the context of the project. If the discontinuation of reference interest rates requires contracts to be modified, such modifications are discussed with the customers and contracts adjusted accordingly. Any newly concluded contracts already refer to the new reference interest rates to the extent possible. Any necessary adjustments to processes, the Written Set of Procedural Rules and documentation requirements are developed as part of the project and transferred to line activities.

(65) Disclosures on credit risk

For information on risk management practice and input factors, please refer to the chapter "Credit default risk" in the Risk Report included in the Management Report. The chapter also provides a breakdown of gross carrying amounts of on-balance sheet as well as off-balance sheet credit business, money-market business, and capital markets business, by rating class and loss allowance stages.

The following overviews present the loss allowance and the provisions for credit risks per stage and separately by product groups.

Loss allowance (ac)

2022

€ mn	Balance as at 1 January	Additions	Utilisation	Reversals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 3	Interest effect	Currency adjustment	Balance as at 31 December
Stage 1	**9**	**33**	**–**	**5**	**10**	**-5**	**–**	**–**	**0**	**42**
Loan receivables (ac)	8	32	–	4	10	-5	–	–	0	41
Money market and capital market receivables (ac)	1	1	–	1	0	0	–	–	0	1
Stage 2	**77**	**38**	**–**	**56**	**-10**	**12**	**-3**	**–**	**1**	**59**
Loan receivables (ac)	75	38	–	54	-10	12	-3	–	1	59
Money market and capital market receivables (ac)	2	0	–	2	0	0	–	–	–	0
Stage 3	**403**	**206**	**198**	**27**	**–**	**-7**	**3**	**15**	**-9**	**386**
Loan receivables (ac)	403	206	198	27	–	-7	3	15	-9	386
Receivables from other transactions (ac)	**3**	**1**	**1**	**0**	**–**	**–**	**–**	**–**	**0**	**3**
Total	492	278	199	88	–	–	–	15	-8	490

2021

€ mn	Balance as at 1 January	Addi-tions	Utili-sation	Rever-sals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 2	Interest effect	Currency adjustment	Balance as at 31 December
Stage 1	**19**	**12**	**-**	**9**	**0**	**-13**	**0**	**-**	**0**	**19**
Loan receivables (ac)	18	11	-	8	0	-13	0	-	0	18
Money market and capital market receivables (ac)	1	1	-	1	0	0	-	-	0	1
Stage 2	**77**	**30**	**-**	**43**	**0**	**13**	**-4**	**-**	**4**	**77**
Loan receivables (ac)	71	30	-	39	0	13	-4	-	4	71
Money market and capital market receivables (ac)	6	0	-	4	0	0	-	-	-	6
Stage 3	**492**	**200**	**295**	**57**	**-**	**0**	**4**	**41**	**18**	**492**
Loan receivables (ac)	492	200	295	57	-	0	4	41	18	492
Receivables from other transactions (ac)	**4**	**0**	**1**	**0**	**-**	**-**	**-**	**-**	**0**	**4**
Total	**592**	**242**	**296**	**109**	**-**	**0**	**-**	**41**	**22**	**592**

The loss allowance for financial assets (ac) is reported in the item "Loss allowance (ac)" on the assets side of the statement of financial position.

Loss allowance in the reserve from the measurement of debt instruments (fvoci)

The loss allowance for debt instruments (fvoci) amounts to € 1 million (2021: € 0 million) and is reported on the equity and liabilities side of the statement of financial position under other reserves.

Provisions for unrecognised lending business

2022

€ mn	Provisions as at 1 Jan	Addi-tions	Utili-sation	Rever-sals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 3	Interest effect	Currency adjustment	Provisions as at 31 Dec
Stage 1	1	3	–	1	1	0	–	–	0	2
Stage 2	2	1	–	2	-1	0	0	–	0	2
Stage 3	0	–	–	–	–	–	–	–	–	0
Total	**3**	**4**	**–**	**3**	**–**	**–**	**–**	**–**	**0**	**4**

2021

€ mn	Provisions as at 1 Jan	Addi-tions	Utili-sation	Rever-sals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 2	Interest effect	Currency adjustment	Provisions as at 31 Dec
Stage 1	2	1	–	2	0	0	–	–	0	1
Stage 2	2	1	–	1	0	0	–	–	0	2
Stage 3	0	–	–	–	–	–	–	–	–	0
Total	**4**	**2**	**–**	**3**	**–**	**–**	**–**	**–**	**0**	**3**

The provisions for unrecognised lending business refer to loan commitments and contingent liabilities and are reported on the equity and liabilities side of the statement of financial position under provisions.

No impaired financial assets were recognised for the first time in the financial year 2022, nor were assets acquired within the context of the realisation of collateral (2021: € – million).

Credit quality of financial receivables from other transactions

Financial receivables from other transactions are subject to credit risk. Of the receivables from other transactions in the amount of € 101 million (2021: € 85 million), € 98 million (2021: € 79 million) were neither overdue nor impaired, € 0 million (2021: € 3 million) were overdue but not impaired and € 3 million (2021: € 3 million) were impaired.

(66) Reconciliation of gross carrying amounts of financial assets

The following tables show the development of the gross carrying amounts of financial assets that are subject to the impairment rules and to which the loss allowance mentioned above can be attributed.

Financial assets (ac)

2022

€ mn	Gross carrying amount as at 1 Jan	Additions	Disposals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 3	Impairment and reversals of impairment	Net modification gain or loss	Currency and other changes	Gross carrying amount as at 31 Dec
Loan receivables (ac)	**29,434**	**13,884**	**12,793**	**–**	**–**	**–**	**-192**	**-5**	**-380**	**29,948**
Stage 1	19,141	11,944	9,157	3,746	-3,314	0	–	-2	-172	22,186
Stage 2	8,788	1,974	3,451	-3,746	3,585	-270	–	0	-103	6,777
Stage 3	1,505	-34	185	–	-271	270	-192	-3	-105	985
POCI	–	–	–	–	–	–	–	–	–	–
Money market and capital market receivables (ac)	**5,884**	**1,862**	**2,087**	**–**	**–**	**–**	**–**	**–**	**-642**	**5,017**
Stage 1	5,695	1,860	2,007	120	–	–	–	–	-600	5,068
Stage 2	189	2	80	-120	–	–	–	–	-42	-51
Receivables from other transactions (ac)	**85**	**108**	**92**	**–**	**–**	**–**	**–**	**–**	**0**	**101**
Total	35,403	15,854	14,972	–	–	–	-192	-5	-1,022	35,066

2021

€ mn	Gross carrying amount as at 1 Jan	Additions	Disposals	Transfer in Stage 1	Transfer in Stage 2	Transfer in Stage 3	Impairment and reversals of impairment	Net modification gain or loss	Currency and other changes	Gross carrying amount as at 31 Dec
Loan receivables (ac)	**27,277**	**10,151**	**8,554**	**–**	**–**	**–**	**-283**	**-4**	**847**	**29,434**
Stage 1	19,318	9,603	6,084	544	-4,667	-129	–	-2	558	19,141
Stage 2	6,410	546	2,110	-500	4,682	-487	–	0	247	8,788
Stage 3	1,549	2	360	-44	-15	616	-283	-2	42	1,505
POCI	–	–	–	–	–	–	–	–	–	–
Money market and capital market receivables (ac)	**5,884**	**1,593**	**1,395**	**–**	**–**	**–**	**–**	**–**	**-198**	**5,884**
Stage 1	5,328	1,593	1,300	249	-14	–	–	–	-161	5,695
Stage 2	556	0	95	-249	14	–	–	–	-37	189
Receivables from other transactions (ac)	**94**	**39**	**50**	**–**	**–**	**–**	**–**	**–**	**2**	**85**
Total	33,255	11,783	9,999	–	–	–	-283	-4	651	35,403

Financial assets (fvoci)

2022

€ mn	Gross carrying amount as at 1 Jan	Additions	Disposals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 3	Impairment and reversals of impairment	Net modification gain or loss	Currency and other changes	Gross carrying amount as at 31 Dec
Money market and capital market receivables (fvoci)	**3,749**	**1,178**	**946**	**–**	**–**	**–**	**–**	**–**	**-431**	**3,550**
Stage 1	3,749	1,178	946	–	–	–	–	–	-431	3,550
Equity instruments (fvoci)	**4**	**–**	**2**	**–**	**–**	**–**	**–**	**–**	**0**	**2**
Stage 1	4	–	2	–	–	–	–	–	0	2
Total	3,753	1,178	948	–	–	–	–	–	-431	3,552

2021

€ mn	Gross carrying amount as at 1 Jan	Additions	Disposals	Transfer to Stage 1	Transfer to Stage 2	Transfer to Stage 3	Impairment and reversals of impairment	Net modification gain or loss	Currency and other changes	Gross carrying amount as at 31 Dec
Money market and capital market receivables (fvoci)	**3,667**	**947**	**752**	**–**	**–**	**–**	**–**	**–**	**-113**	**3,749**
Stage 1	3,667	947	752	–	–	–	–	–	-113	3,749
Equity instruments (fvoci)	**5**	**–**	**1**	**–**	**–**	**–**	**–**	**–**	**0**	**4**
Stage 1	5	–	1	–	–	–	–	–	0	4
Total	3,672	947	753	–	–	–	–	–	-113	3,753

Please refer to the presentation of the items of the statement of financial position in the section "Notes to the statement of financial position" for information on maximum credit risk exposure since the carrying amount corresponds to the maximum credit risk exposure of Aareal Bank as at the balance sheet date, for both items that are subject to the impairment rules and for financial assets that are not subject to the impairment rules. The collateral received is described in the Report on the Economic Position and in the Risk Report as part of the Group Management Report.

As at the current reporting date, no receivables from the lending business that were written off during the reporting year were still the subject matter of foreclosure proceedings (2021: € 1 million).

(67) Modification effects

If modifications are made to financial assets during the contract term leading to changes in the contractual cash flows and if these changes are not that extensive that the financial asset is derecognised and a new asset is recognised, such modifications are non-substantial modifications. Following a non-substantial modification, the carrying amount of a financial asset is remeasured and a net modification gain or loss is recorded in net interest income or in the loss allowance.

The following table shows the amortised cost before modification of financial assets that were subject to non-substantial modifications in the reporting period as well as the related modification gain or loss.

	2022			2021		
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
€ mn						
Amortised cost before modification	211	128	46	45	836	283
Net gain or loss on modification	-2	0	-3	-2	0	-2
Amortised cost after modification	**209**	**128**	**43**	**43**	**836**	**281**

During the financial year 2022, receivables from the lending business in the amount of € 20 million were reclassified from Stage 2 or Stage 3 to Stage 1, which had been modified since they were first classified as Stage 2 or Stage 3 receivables (2021: € 99 million).

(68) Offsetting financial instruments

Financial assets and financial liabilities are offset and the net amount is presented in the statement of financial position when currently there is a legally enforceable right to set off the recognised amounts, and when the Bank intends either to settle on a net basis – or to realise the asset and settle the liability simultaneously. The following overviews show whether and to what extent financial instruments were actually offset as at the current reporting date. The tables also include disclosures on financial instruments that are part of an enforceable master netting or similar arrangement that do not meet the criteria for offsetting in the statement of financial position.

Financial assets

31 December 2022

€ mn	Gross carrying amounts of recognised financial assets	Gross carrying amounts of offset amounts	Net carrying amount reported in the statement of financial position	Financial liabilities which were not subject to offsetting	Collateral received	Remaining net amount
Derivatives	1,825	–	1,825	1,674	147	4
Reverse repos	–	–	–	–	–	–
Total	**1,825**	**–**	**1,825**	**1,674**	**147**	**4**

31 December 2021

€ mn	Gross carrying amounts of recognised financial assets	Gross carrying amounts of offset amounts	Net carrying amount reported in the statement of financial position	Financial liabilities which were not subject to offsetting	Collateral received	Remaining net amount
Derivatives	1,143	–	1,143	877	251	15
Reverse repos	–	–	–	–	–	–
Total	**1,143**	**–**	**1,143**	**877**	**251**	**15**

Financial liabilities

31 December 2022

€ mn	Gross carrying amounts of recognised financial liabilities	Gross carrying amounts of offset amounts	Net carrying amount reported in the statement of financial position	Financial assets which were not subject to offsetting	Collateral provided	Remaining net amount
Derivatives	3,514	–	3,514	1,674	1,555	285
Repos	97	–	97	–	97	–
Total	**3,611**	**–**	**3,611**	**1,674**	**1,652**	**285**

31 December 2021

€ mn	Gross carrying amounts of recognised financial liabilities	Gross carrying amounts of offset amounts	Net carrying amount reported in the statement of financial position	Financial assets which were not subject to offsetting	Collateral provided	Remaining net amount
Derivatives	1,884	–	1,884	877	900	107
Repos	–	–	–	–	–	–
Total	**1,884**	**–**	**1,884**	**877**	**900**	**107**

To reduce counterparty risk, Aareal Bank Group concludes standardised master agreements for financial derivatives and securities repurchase agreements, such as the ISDA Master Agreement, the German Master Agreement on Financial Derivatives or the Master Agreement for Securities Repurchase Transactions. In addition, Aareal Bank enters into collateral agreements (Credit Support Annex to the ISDA Master Agreement and Collateral Annex to the German Master Agreement on Financial Derivatives) in which a mutual collateralisation of all claims between the contracting parties is agreed and which include netting arrangements.

The master agreements for financial derivatives used by Aareal Bank include netting arrangements at a single transaction level (so-called "payment netting"), which provide for a netting of payments when both parties need to make payments in the same currency on the same date, as set out in the contract. Aareal Bank does not offset financial derivatives according to the rules related to payment netting, as the transactions are not settled on a net basis. Aareal Bank Group has not entered into arrangements providing for netting of derivatives across several transactions.

For securities repurchase transactions (repo), depending on the counterparty, payment or delivery netting is made. In line with the rules set out in the master agreement for repo transactions, payments or deliveries of securities may be offset when both counterparties have to make payments in the same currency on the same date, or have to deliver securities of the same type. Transactions effected on the basis of the master agreement for repo transactions generally meet the offsetting requirements of IAS 32.

(69) Assets provided or accepted as collateral

Assets provided as collateral

Aareal Bank Group has provided financial assets as collateral for its liabilities, including TLTRO, or contingent liabilities. The following overview shows the carrying amount of the collateral provided and the items of the statement of financial position in which they are reported.

€ mn	31 Dec 2022	31 Dec 2021
Money market and capital market receivables (ac, fvoci and fvpl)	3,590	5,695
Receivables from other transactions (ac)	41	35
Total	**3,631**	**5,730**

The protection buyer has no right to sell or re-pledge any of the financial assets pledged as collateral (2021: € – million). There is a fully cash-collateralised and irrevocable payment obligation in the amount of € 41 million (2021: € 35 million) from the bank levy and also for the deposit guarantee scheme of German banks. This obligation is reported under receivables from other transactions (ac).

Assets accepted as collateral

Aareal Bank Group accepts financial assets as collateral. These assets may be sold or pledged without the collateral owner being in default. No fixed-income securities were accepted as collateral for repo transactions as at the reporting date (2021: € – million).

Collateral is provided and accepted predominantly on the basis of standardised agreements on securities repurchase transactions and on the collateralisation of forward transactions.

(70) Transfer of financial assets without derecognition

Aareal Bank Group sells securities subject to a take-back requirement as borrower within the framework of genuine repurchase agreements. Within the scope of such agreements, securities were transferred to lenders without resulting in the securities being derecognised since Aareal Bank Group retains the substantial risks and rewards from the securities. The risks to which Aareal Bank Group is still exposed comprise the default risk, the interest rate risk and other price risks. The equivalent values received as collateral during the transfer of securities are accounted as money-market receivables or liabilities. Within the context of securities repurchase transactions, the unrestricted title and the unrestricted power of disposition is transferred to the lender upon delivery of the securities. The lender has the right to sell or pledge these securities, however, he is required to retransfer securities of the same type and in the same amount as at the repurchase date.

As at the reporting date, securities with a carrying amount of € 96 million were used as part of repurchase agreements (2021: € – million).

(71) Derivative financial instruments

The following table shows positive and negative market values (including pro-rata interest) of all derivative financial instruments by hedge and risk types:

€ mn	Fair value as at 31 Dec 2022 positive	Fair value as at 31 Dec 2022 negative	Fair value as at 31 Dec 2021 positive	Fair value as at 31 Dec 2021 negative
Fair value hedge derivatives	**1,102**	**2,141**	**892**	**947**
Interest rate risk	1,093	2,141	892	919
Interest rate swaps	1,093	2,141	892	919
Interest rate and currency risk	9	–	–	28
Cross-currency swaps	9	–	–	28
Hedge of net investments	**1**	**42**	**8**	**24**
Currency risk	1	42	8	24
Cross-currency swaps	1	42	8	24
Other derivatives	**722**	**1,331**	**232**	**911**
Interest rate risk	486	692	123	384
Interest rate swaps	347	554	112	373
Caps, floors	139	138	11	11
Interest rate and currency risk	236	639	109	527
Spot and forward foreign exchange transactions	15	4	2	10
Cross-currency swaps	221	635	107	517
Total	**1,825**	**3,514**	**1,132**	**1,882**

Derivatives have been entered into with the following counterparties:

€ mn	Fair value as at 31 Dec 2022 positive	Fair value as at 31 Dec 2022 negative	Fair value as at 31 Dec 2021 positive	Fair value as at 31 Dec 2021 negative
OECD banks and central governments	1,823	3,343	1,073	1,785
Companies and private individuals	2	171	59	97
Total	**1,825**	**3,514**	**1,132**	**1,882**

The following overview shows the cash flows of derivative financial instruments by risk types, based on the contractual maturity. The amounts shown in the table represent the contractually agreed future undiscounted cash flows.

31 December 2022

€ mn	Up to 3 months	3 months to 1 year	1 year to 5 years	More than 5 years	Total
Interest rate risk					
Interest rate swaps					
Cash inflows	256	970	2,293	546	**4,065**
Cash outflows	298	1,056	2,787	724	**4,865**
Caps, floors					
Cash inflows	6	51	85	0	**142**
Cash outflows	6	50	85	0	**141**
Interest rate and currency risk					
Spot and forward foreign exchange transactions					
Cash inflows	1,606	163	–	–	**1,769**
Cash outflows	1,594	163	–	–	**1,757**
Cross-currency swaps					
Cash inflows	964	3,714	11,039	-7	**15,710**
Cash outflows	1,102	4,025	11,419	–	**16,546**
Total cash inflows	**2,832**	**4,898**	**13,417**	**539**	**21,686**
Total cash outflows	**3,000**	**5,294**	**14,291**	**724**	**23,309**

31 December 2021

€ mn	Up to 3 months	3 months to 1 year	1 year to 5 years	More than 5 years	Total
Interest rate risk					
Interest rate swaps					
Cash inflows	92	265	641	152	**1,150**
Cash outflows	114	204	579	166	**1,063**
Caps, floors					
Cash inflows	0	0	11	0	**11**
Cash outflows	0	0	11	0	**11**
Interest rate and currency risk					
Spot and forward foreign exchange transactions					
Cash inflows	1,407	174	–	–	**1,581**
Cash outflows	1,416	174	–	–	**1,590**
Cross-currency swaps					
Cash inflows	528	1,929	10,813	-9	**13,261**
Cash outflows	583	2,116	11,395	–	**14,094**
Total cash inflows	**2,027**	**2,368**	**11,465**	**143**	**16,003**
Total cash outflows	**2,113**	**2,494**	**11,985**	**166**	**16,758**

The procedure for measuring and monitoring liquidity risk is described in the Risk Report, part of the Group Management Report.

(72) Disclosures on hedging relationships

Disclosures on hedging derivatives

The following tables show designated hedging derivatives separately for each type of hedging relationship, risk category and product type:

Positive market value of designated hedging derivatives

€ mn	Carrying amount 31 Dec 2022	Nominal amount 31 Dec 2022	Fair value change 1 Jan - 31 Dec 2022	Carrying amount 31 Dec 2021	Nominal amount 31 Dec 2021	Fair value change 1 Jan - 31 Dec 2021
Fair value hedges						
Interest rate risk						
Interest rate swaps	1,093	13,204	752	892	16,618	-268
Interest rate and currency risk						
Cross-currency swaps	9	113	31	–	–	–
Hedge of net investments						
Currency risk						
Cross-currency swaps	1	90	0	8	441	0
Spot and forward foreign exchange transactions	0	24	0	–	–	–
Total	**1,103**	**13,431**	**783**	**900**	**17,059**	**-268**

Negative market value of designated hedging derivatives

€ mn	Carrying amount 31 Dec 2022	Nominal amount 31 Dec 2022	Fair value change 1 Jan - 31 Dec 2022	Carrying amount 31 Dec 2021	Nominal amount 31 Dec 2021	Fair value change 1 Jan - 31 Dec 2021
Fair value hedges						
Interest rate risk						
Interest rate swaps	2,141	21,934	1,790	919	14,841	-159
Interest rate and currency risk						
Cross-currency swaps	–	–	–	28	119	-12
Hedge of net investments						
Currency risk						
Cross-currency swaps	42	760	0	24	670	0
Currency swaps	–	–	–	0	19	0
Total	**2,183**	**22,694**	**1,790**	**971**	**15,630**	**-171**

The following overview presents the nominal amounts of the hedging derivatives by maturities:

31 December 2022

€ mn	Up to 3 months	3 months to 1 year	1 year to 5 years	More than 5 years	Total
Fair value hedges					
Interest rate risk					
Interest rate swaps	1,672	5,058	20,140	8,269	**35,139**
Interest rate and currency risks					
Cross-currency swaps	–	113	–	–	**113**
Hedge of net investments					
Currency risk					
Cross-currency swaps	219	396	234		**849**
Currency swaps	24	–	–	–	**24**
Total nominal amounts	**1,915**	**5,567**	**20,374**	**8,269**	**36,125**

Aareal Bank applies the standard amendments from the first part of the effects of the interest rate benchmark reform (IBOR reform) on financial reporting in the period prior to the replacement of an existing interest rate benchmark. The uncertainties refer to the hedging of changes in fair value from interest rate risk. This applies to variable reference rates with terms of one to six months for the currencies CAD, DKK, EUR, SEK and USD. An amount of € 28.6 billion of the total of € 36.1 billion is attributable to benchmark interest rates for which no official cessation effective date has been announced and/or for which no contractual arrangements for transition have been made. Aareal Bank still does not expect the changes from the IBOR reform to require the discontinuation of hedging relationships.

31 December 2021

€ mn	Up to 3 months	3 months to 1 year	1 year to 5 years	More than 5 years	Total
Fair value hedges					
Interest rate risk					
Interest rate swaps	1,335	3,880	19,057	7,186	**31,458**
Interest rate and currency risks					
Cross-currency swaps	–	–	119	–	**119**
Hedge of net investments					
Currency risk					
Cross-currency swaps	90	359	662	–	**1,111**
Currency swaps	19	–	–	–	**19**
Total nominal amounts	**1,444**	**4,239**	**19,838**	**7,186**	32,688

Disclosures on hedged items

Hedged items of fair value hedges

The following tables show hedged items and hedge adjustments from discontinued hedging relationships separately for each type of hedging relationship and risk category:

€ mn	Active hedging relationships Carrying amount 31 Dec 2022	Active hedging relationships Accumulated hedge adjustment 31 Dec 2022	Active hedging relationships Change in hedged fair values 1 Jan-31 Dec 2022	Discontinued hedging relationships Balance of hedge adjustments 31 Dec 2022
Interest rate risk				
Loan receivables (ac)	6,991	-509	-736	1
Money market and capital market receivables (ac)	1,965	-31	-287	125
Money market and capital market receivables (fvoci)	3,362	-353	-407	1
Money market and capital market liabilities (ac)	19,841	-1,961	-2,400	18
Subordinated liabilities (ac)	295	-14	-39	2
Interest rate and currency risk				
Money market and capital market receivables (ac)	119	6	-31	–

€ mn	Active hedging relationships Carrying amount 31 Dec 2021	Active hedging relationships Accumulated hedge adjustment 31 Dec 2021	Active hedging relationships Change inhedged fair values 1 Jan-31 Dec 2021	Discontinued hedging relationships Balance of hedge adjustments 31 Dec 2021
Interest rate risk				
Loan receivables (ac)	7,765	8	-247	42
Money market and capital market receivables (ac)	2,935	514	-114	143
Money market and capital market receivables (fvoci)	3,617	51	-87	1
Money market and capital market liabilities (ac)	18,026	503	-553	37
Subordinated liabilities (ac)	489	28	-16	2
Interest rate and currency risk				
Money market and capital market receivables (ac)	156	37	-12	–

Hedge of net investments

The change in value of currency-hedged net investments in foreign operations amounted to € 51 million (2021: € -85 million) in the financial year under review. The balance of the hedging reserve (net) stood at € -62 million (2021: € -10 million) at year-end.

Net gain or loss from hedge accounting

Fair value hedges

The net gain or loss from hedge accounting includes the following ineffective portions of fair value hedges by risk categories:

€ mn	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Interest rate risks	-2	-6
Interest rate and currency risks	0	1
Total	**-2**	**-5**

Hedge of net investments

The ineffective portion of currency-hedged net investments in foreign operations amounted to € 0 million (2021: € 0 million), reported in the item "Net gain or loss from hedge accounting". € -5 million (2021: € – million) was reclassified from the reserve for currency-hedged net investments to the income statement.

Please also refer to our explanations in the Notes (9) and (36).

(73) Maturities of financial liabilities

The following overview shows the future undiscounted cash flows of non-derivative financial liabilities and of loan commitments.

Maturities as at 31 December 2022

€ mn	Payable on demand	Up to 3 months	3 months to 1 year	1 year to 5 years	More than 5 years	Total
Money market and capital market liabilities (ac)	819	3,292	4,135	12,832	9,637	**30,715**
Deposits from the housing industry (ac)	10,181	2,653	272	9	–	**13,115**
Subordinated liabilities (ac)	–	4	50	245	156	**455**
Financial liabilities from other transactions (ac)	94	–	1	–	–	**95**
Lease liabilities	–	3	9	27	5	**44**
Financial guarantees	129	–	–	–	2	**131**
Loan commitments	1,230	–	–	–	–	**1,230**

Maturities as at 31 December 2021

€ mn	Payable on demand	Up to 3 months	3 months to 1 year	1 year to 5 years	More than 5 years	Total
Money market and capital market liabilities (ac)	605	2,884	8,593	11,362	8,489	**31,933**
Deposits from the housing industry (ac)	9,409	2,307	1	1	–	**11,718**
Subordinated liabilities (ac)	–	4	198	319	135	**656**
Financial liabilities from other transactions (ac)	93	–	1	–	–	**94**
Lease liabilities	–	3	9	35	34	**81**
Financial guarantees	120	–	–	–	2	**122**
Loan commitments	1,062	–	–	–	–	**1,062**

The Risk Report, part of the Group Management Report, includes a detailed description of the liquidity risk associated with financial liabilities.

Segment Reporting

(74) Operating segments of Aareal Bank

Aareal Bank prepares its segment reporting in accordance with IFRS 8 Operating Segments.

In accordance with the “management approach” set out in IFRS 8, the segment report discloses, on a segment-specific basis, financial information which is relevant for internal control of an entity and which is also used by such entity’s management to make decisions on the allocation of resources as well as to measure the financial performance of segments.

Three operating segments were defined within Aareal Bank in line with internal management reporting, based on the organisational structure established according to the various products and services offered.

The **Structured Property Financing segment** comprises the property financing and refinancing activities. In this segment, Aareal Bank facilitates property investments for its domestic and international clients, and is active in Europe, North America and Asia/Pacific. It offers commercial property financing solutions, especially for office buildings, hotels, retail, logistics and residential properties. Its particular strength lies in its success in combining local market expertise and sector-specific know-how. In addition to local experts, the Bank also has industry specialists at its disposal, to create financing packages for logistics and retail properties and hotels. This enables Aareal Bank to offer tailor-made financing concepts that meet the special requirements of its national and international clients. What makes Aareal Bank special are its direct client relationships, which – in very many cases – it has maintained for many years.

Aareal Bank is an active issuer of Pfandbriefe, which account for a major share of its long-term funding. Moody’s Aaa rating of the Pfandbriefe confirms the quality of the cover assets pool. To cater to a broad investor base, Aareal Bank uses a wide range of other refinancing tools, including senior preferred and senior non-preferred bonds, as well as other promissory notes and bonds. Depending on market conditions, the Bank places large-sized public issues or private placements. In the Banking & Digital Solutions segment, the Bank also generates bank deposits from the housing industry, which represent a strategically important additional source of funding. Furthermore, it has recourse to deposits form institutional money market investors, as well as to retail deposits by way of a trust model.

In the **Banking & Digital Solutions segment,** Aareal Bank Group offers services, products and solutions to the housing and commercial property industries to optimise digital payment, electronic banking and cash management processes. With its BK01 software, it offers a procedure for the automated settlement of mass payments, in the German property industry. The procedure is integrated in licenced ERP systems. Therefore, customers in Germany may process their payment transactions and account management from the administration software employed. Apart from the German residential and commercial property sector, the German energy and waste disposal industry is a second important customer group of the segment. This enables the offer of further products, facilitating the cross-sector cooperation of target groups and realising synergy effects via end-to-end digital processes. The use of the payment transaction products of Aareal Bank generates deposits that contribute significantly to Aareal Bank Group’s refinancing base.

As part of the **Aareon segment,** the Aareon sub-group offers the IT systems and advisory business for the housing and commercial property sector. Aareon offers its customers reliable, pioneering solutions in the fields of consulting, software and services to optimise IT-supported business processes in the digital age. The ERP (Enterprise Resource Planning) systems, which are tailored to the needs of the respective market, may be supplemented by further digital solutions for purposes of process optimisation. The majority of these integrated systems forms the digital ecosystem “Aareon Smart World”. It connects property companies with customers, employees and business partners as well as technical “equipment” in apartments and buildings. Aareon Smart World can be used to restructure and optimise processes. The applications help to reduce costs, enable the creation of new business models by providing links between all participants and offer more ease-of-use in the dialogue between tenants and employees of the housing industry.

Aareon offers software solutions both in Germany and abroad that may be used in various types of operating environments: in-house services, hosting and Software as a Service (SaaS) from the exclusive Aareon Cloud. Data from Aareon’s Cloud Computing is held in Aareon's certified data-processing centre in Mainz, which guarantees data security and protection at the highest level. Following successful advice, implementation and training, customers usually opt for a maintenance model covering regular support services.

Income and expenses within Aareal Bank are predominantly attributable to transactions with third parties, and are directly allocated to the responsible business segment. Revenue from transactions between Aareal Bank's segments was not generated in a significant amount. Therefore, we elected not to distinguish between internal and external revenue in the following disclosures. Administrative expenses not directly attributable to any of the business segments are segmented in line with the internal cost allocation, based on the principle of causation.

The results of the business segments are measured by the operating profit and the return on equity (RoE). RoE, which indicates a segment's profitability, is calculated as the ratio of the segment's operating result (after non-controlling interests and after AT1 interest) to the portion of equity allocated to that segment on average. Allocated equity is calculated on the basis of standardised capital requirements pursuant to Basel IV (phase-in) of 15 %.

(75) Segment results

	Structured Property Financing		Banking & Digital Solutions		Aareon		Consolidation/ Reconciliation		Aareal Bank Group	
	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
€ mn										
Net interest income	627	560	92	43	-17	-6	0	0	702	597
Loss allowance	192	133	0	0	0	0			192	133
Net commission income	6	8	31	28	252	221	-12	-12	277	245
Net derecognition gain or loss	1	23							1	23
Net gain or loss from financial instruments (fvpl)	26	-30	0	0	0				26	-30
Net gain or loss from hedge accounting	-2	-5							-2	-5
Net gain or loss from investments accounted for using the equity method	0	0	-1	-1	-1	-1			-2	-2
Administrative expenses	260	256	79	73	244	211	-12	-12	571	528
Net other operating income/expenses	-6	-13	-1	-1	7	2	0	0	0	-12
Operating profit	**200**	**154**	**42**	**-4**	**-3**	**5**	**0**	**0**	**239**	**155**
Income taxes	70	82	14	-1	2	6			86	87
Consolidated net income	**130**	**72**	**28**	**-3**	**-5**	**-1**	**0**	**0**	**153**	**68**
Consolidated net income attributable to non-controlling interests	0	0	0	0	0	1			0	1
Consolidated net income attributable to shareholders of Aareal Bank AG	130	72	28	-3	-5	-2	0	0	153	67

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	Structured Property Financing		Banking & Digital Solutions		Aareon		Consolidation/ Reconciliation		Aareal Bank Group	
	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021
€ mn										
Allocated equity[1]	1,501	1,664	404	262	49	39	824	578	2,778	2,543
RoE after taxes (%)[2]	7.7	3.5	6.9	-1.3	-10.1	-4.8			5.0	2.1
Employees (average)	**802**	**785**	**404**	**378**	**2,030**	**1,914**			**3,236**	**3,077**
Segment assets	**33,139**	**36,095**	**13,497**	**12,084**	**694**	**549**			**47,330**	**48,728**

[1] For management purposes, the allocated equity is calculated for all segments on the basis of a standardised capital requirement pursuant to Basel IV (phase-in) of 15%. Until 30 September 2022, the calculated output floor for the BDS and Aareon segments was 72.5%. Reported equity on the statement of financial position differs from this. Aareon's total equity as disclosed in the statement of financial position amounts to € 150 million (2021: € 143 million).
[2] The allocation of earnings is based on the assumption that net interest payable on the AT1 bond is recognised on an accrual basis

Commission income from contracts with clients (revenue within the meaning of IFRS 15) is allocated to the segments as follows:

	Structured Property Financing		Banking & Digital Solutions		Aareon		Consolidation/ Reconciliation		Aareal Bank Group	
	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021	1 Jan - 31 Dec 2022	1 Jan - 31 Dec 2021
€ mn										
ERP products (incl. add-on products)					223	200	-17	-18	206	182
Digital solutions					85	70			85	70
Banking business and other activities	9	10	37	35	0	0			46	45
Total	**9**	**10**	**37**	**35**	**308**	**270**	**-17**	**-18**	**337**	**297**

(76) Income by geographical markets

	2022	2021
€ mn		
Germany	691	563
Rest of Europe	155	145
North America	134	120
Asia/Pacific	12	7
Total	**992**	**835**

Income includes net interest income (excluding loss allowance), net commission income, net gain or loss on derecognition and net gain or loss from financial instruments (fvpl). Allocation to geographical markets is based on the registered office or domicile of the Group company or branch office.

Other Notes

(77) Assets and liabilities in foreign currency

Foreign currency assets

€ mn	31 Dec 2022	31 Dec 2021
USD	12,546	12,059
GBP	4,984	5,080
CAD	1,402	1,412
SEK	1,019	938
CHF	338	324
DKK	331	102
Other	1,294	633
Total	**21,914**	**20,548**

Foreign currency liabilities

€ mn	31 Dec 2022	31 Dec 2021
USD	12,487	12,047
GBP	4,947	5,095
CAD	1,382	1,398
SEK	1,005	931
CHF	336	323
DKK	334	102
Other	1,284	627
Total	**21,775**	**20,523**

(78) Subordinated assets

In the event of insolvency or liquidation of the issuer, subordinated assets are those subordinate to the claims of all other creditors. Subordinated assets amounted to € 338 million in the financial year 2022 (2021: € 309 million).

(79) Leases

Leases where the Bank acts as the lessee

The following overview shows the movements in the right-of-use assets from leases where Aareal Bank Group acts as the lessee.

	2022			2021		
€ mn	Right-of-use assets in land and buildings	Right-of-use assets in office furniture and equipment	Total	Right-of-use assets in land and buildings	Right-of-use assets in office furniture and equipment	Total
Cost						
Balance as at 1 January	**68**	**5**	**73**	**67**	**6**	**73**
Additions	12	7	**19**	10	3	**13**
Transfers	-1	–	**-1**	–	–	**–**
Depreciation, amortisation and write-downs	11	4	**15**	6	1	**7**
Disposals	37	4	**41**	7	3	**10**
Changes in the basis of consolidation	0	0	**0**	2	0	**2**
Currency translation differences	1	0	**1**	2	0	**2**
Balance as at 31 December	**32**	**4**	**36**	**68**	**5**	**73**

Right-of-use assets are recognised under property and equipment.

Aareal Bank Group primarily rents properties which are, in some cases, subject to longer-term rental agreements with extension options of up to ten years where the exercise is reasonably certain. The leases are not subject to material residual value guarantees.

The entire cash outflows from leases where Aareal Bank Group is the lessee in the current period amount to € 15 million (2021: € 17 million) as at the reporting date.

Expenses and income from Aareal Bank Group include the following amounts from leases with Aareal Bank Group as the lessee:

€ mn	31 Dec 2022	31 Dec 2021
Interest expenses for lease liabilities	1	2
Expenses for short-term leases	2	2
Expenses for low-value leases	0	0
Income from the sublease of right-of-use assets	0	0

In the financial year 2022, no material variable lease payments were agreed upon (2021: € – million).

The future undiscounted cash flows from lease liabilities based on their maturities are disclosed in the Note “Maturities of financial liabilities”.

Leases where the Bank acts as the lessor

Aareal Bank Group acts as lessor as regards the lease of property. The material rental contracts are classified as operating leases. Properties leased by the Group are reported under the item “Other assets”. Not all properties reported under the item “Other assets” are currently let. The risks of these properties are included in property risk management.

Income from operating leases amounted to € 8 million (2021: € 12 million) in the year under review. It is recognised in the income statement on a straight-line basis over the lease term.

The following overview shows the future undiscounted payments under operating leases based on their maturities where Aareal Bank Group acts as the lessor.

€ mn	31 Dec 2022	31 Dec 2021
Up to 1 year	8	9
Longer than 1 year, and up to 5 years	27	19
Longer than 5 years	7	6
Total minimum lease payments	**42**	**34**

(80) Contingent liabilities and loan commitments

€ mn	31 Dec 2022	31 Dec 2021
Contingent liabilities	131	122
Loan commitments	1,230	1,063
of which: irrevocable	905	740

Contingent liabilities include irrevocable payment obligations regarding the bank levy and the liability to the deposit guarantee scheme of German banks. These and the values reported under loan commitments given represent the maximum default risk to which Aareal Bank Group is exposed at the end of the reporting period.

Furthermore, the Bank is involved in legal disputes. Based on a legal analysis, successful outcome of these disputes is more likely than not. Essentially, these are legal disputes with borrowers (or former borrowers) who claim damages against the Bank. These are included in the table above, with a probability-weighted amount of € 28 million (2021: € 27 million), but have not been recognised as liabilities. The maximum non-probability-weighted default risk – assuming the Bank were to lose all such legal disputes – is estimated in the high double-digit million range. The respective duration of proceedings depends on the complexity of each individual litigation and the legal remedies available in each case. Likewise, the final amount in the event of defeat may vary considerably, depending upon the duration of proceedings and the legal remedies. Refunds of litigation costs are possible.

Tax risks were also included in contingent liabilities in the year under review, at a probability-weighted amount of € 49 million (2021: € 37 million). They result from the diverging assessment of tax matters and potential legal changes. This is offset by opportunities, albeit to a lesser extent. We estimate the maximum tax risk to be in the low triple-digit million range.

Accordingly, the recognition of contingent liabilities is also subject to estimation uncertainties.

(81) Regulatory capital and capital management

As regards meeting minimum capital ratios, Aareal Bank Group has to comply with the capital adequacy requirements set out in the Capital Requirements Regulation (CRR), the Capital Requirements Directive IV (CRD IV), the German Banking Act (Kreditwesengesetz, KWG) and the German Solvency Regulation (Solvabilitätsverordnung, SolvV). This requires Aareal Bank to comply with a Total SREP Capital Requirement (TSCR) in 2023 of 11.00 % on a consolidated basis (2022: 10.75 %). This includes the requirement to maintain additional own funds (capital buffer) for risks other than the risk of excessive leverage (Pillar 2 requirements – P2R) of 3.00 %, which must be maintained in the form of at least 56.25 % Common Equity Tier 1 (CET1) capital and 75 % Tier 1 (T1) capital, respectively. The increase is in particular due to increased requirements referring to the economic environment as well as to increased (geo)political uncertainties and their potential impact on Aareal Bank. The Overall Capital Requirement (OCR) of Aareal Bank in 2023 amounts to 13.66 % (2022: 13.26 – 13.41 %), resulting from the TSCR plus the capital conservation buffer of 2.5 % and the currently applicable countercyclical buffer of 0.16 % (2022: 0.01 – 0.16 %). Both of the buffers have to be maintained in the form of Common Equity Tier 1 capital. In addition, several countries have already announced a (re-)introduction of the countercyclical capital buffer previously suspended in almost all countries due to the Covid-19 pandemic. For example, the package of macroprudential measures as resolved by the German Federal Financial Supervisory Authority (BaFin) in January 2022 provides for a reinstatement of the countercyclical capital buffer for risk exposures located in Germany as well as the first-time introduction of a sector-specific systemic risk buffer for loans collateralised by residential properties in 2023. This will result in increasing capital buffer requirements for the Bank. Compliance with the capital requirements has to be reported to the competent supervisory authorities on a quarterly basis. The capital requirements were complied with at all times during the reporting period.

The objectives of capital management are optimising the capital base as well as an efficient capital allocation to the individual business areas in terms of risk and income. Aareal Bank has defined the CET1 ratio (Basel IV (phase-in)) as a key management indicator, subject to further regulatory changes. The capital ratios are managed through the generation of profits, an active dividend policy, optimisation of the capital structure, and an efficient management of risk assets.

Within the context of capital management, projections are made on a regular basis showing the changes of the individual capital components and risk-weighted assets, as well as the resulting capital ratios. This is reported regularly to the Management Board within the framework of management reporting. The strategic allocation of capital to the individual business segments is incorporated in the Group's annual overall planning process.

(82) Disclosures on remuneration

Management and Supervisory Board

In the financial year 2022, the Management Board's total remuneration, excluding benefits from pension commitments, amounted to € 8 million (2021: € 9 million), of which € 4 million (2021: € 4 million) referred to variable components.

Benefit payments to former Management Board members, including those retired from the Board during the year under review and their respective surviving dependants, totalled € 2 million in 2022 (2021: € 8 million).

The amount of pension obligations to active and former members of the Management Board was € 47 million as at 31 December 2022 (2021: € 65 million). Of that amount, € 5 million (2021: € 11 million) related to members of the Management Board active at the end of the financial year and € 42 million to former members of the Management Board, including those retired from the Board during the year under review, and their surviving dependants (2021: € 55 million).

The total remuneration of members of the Supervisory Board for the financial year 2022 amounted to € 2 million (2021: € 2 million). The remuneration for any financial year shall be due and payable one month after the end of the respective financial year.

Remuneration for key executives

The definition of executives in key positions within Aareal Bank Group includes members of management or supervisory bodies of Aareal Bank AG.

Total remuneration of executives in key positions is analysed below:

€ 000's	31 Dec 2022	31 Dec 2021
Short-term benefits	6,889	7,542
Post-employment benefits	2,701	4,176
Other long-term benefits	1,050	1,112
Termination benefits	–	–
Share-based remuneration	2,309	2,377
Total	**12,949**	**15,207**

Post-employment benefits reported comprise service cost resulting from pension provisions for Management Board members who were in active service during the financial year as well as past service cost.

Provisions for pension obligations concerning key executives totalled € 7 million as at 31 December 2022 (2021: € 32 million).

Disclosures on share-based remuneration

Share-based remuneration for risk takers

In the case of risk takers whose variable remuneration exceeds an exemption threshold, a portion of the variable remuneration is granted in form of a share-based payment, with the amount of such remuneration upon disbursement depending on the development of the price of Aareal Bank AG's shares. In this context, a distinction is made between a share bonus that is immediately due and subject to a holding period (20% to 30% of the variable remuneration) and a deferred share-based payment (also 20% to 30% of the variable remuneration). Effective from 2023, the deferral period of the deferred share-based payment is up to five years, with disbursement being made pro rata temporis, also after a holding period. The disbursement is normally made via cash settlement. Until the disbursement of the share-based remuneration components, these components are also subject to defined penalty conditions that enable a subsequent reduction up to a full elimination. In addition, share-based payment elements that were granted after 2017, may be reclaimed in certain situations ("clawback").

These rules also apply to the members of the Management Board, with the deferral period amounting to at least five years since the financial year 2018 and the deferred share-based payment amounting to at least 35%. The deferral period is also increased for newly appointed Management Board members for the first year of service to seven years and for the second year of service to six years. The deferral period is five years from the third year of service.

Valuation model and valuation assumptions

The obligations resulting from share-based payment arrangements as at the balance sheet date correspond to the remuneration granted, discounted to the balance sheet date. The discount period corresponds to the period from the balance sheet date to the earliest exercise or payout date, per plan and per tranche. The discount is based on the Euribor swap rate applicable as at the relevant balance sheet date, depending on the term.

Amount of cash-settled share-based payment transactions

The total amount of outstanding virtual shares in relation to existing share-based payment arrangements changed as follows:

Quantity (number)	2022	2021
Balance (outstanding) as at 1 January	**654,065**	**703,561**
Granted during the reporting period	272,673	254,153
Expired during the reporting period	–	–
Exercised during the reporting period	267,955	303,649
Balance (outstanding) as at 31 December	**658,783**	**654,065**
of which: exercisable	–	–

As at the reporting date, the total amount of virtual shares granted during the reporting period amounted to € 7 million (2021: € 7 million).

The virtual shares exercised during the reporting period were converted at a weighted average price of the Aareal Bank AG share of € 27.23 (2021: € 22.28).

Impact on financial performance

The total amount expensed for share-based payment transactions was € 3 million during the financial year 2022 (2021: total expenses of € 6 million). The obligation from share-based payment transactions as at 31 December 2022 amounted to € 29 million (2021: € 26 million). It is reported in the statement of financial position in the line item "Provisions".

Management Equity Programme

Together with Advent International, Aareal Bank set up a Management Equity Programme (MEP) for Aareon in 2021 and, in line with its shareholding, contributed Aareon shares with a market value of € 6 million into a management equity company, in which individual members of Aareon's management as well as independent members of the Advisory Board may also acquire an interest at market value.

In the event of a divestment of Aareon, depending on Aareon's performance, the MEP leads to either a gain or loss for the participants in form of Aareon shares (equity-settled). The entitlements generally vest on a quarterly basis over a period of five years. The break-even point is at an appreciation of approximately 60 % and is increased by a minimum interest of 12 % p. a. If the break-even point is exceeded, the management participates in potential disposal gains in a leveraged manner.

The MEP is measured based on an option pricing model with an assumed term of five years and an historic volatility of approximately 30 %.

(83) Related party disclosures in accordance with IAS 24

The group of related parties of Aareal Bank Group comprises the members of management or supervisory bodies of Aareal Bank AG (see preceding note) and close members of these persons' families. The group of companies related to Aareal Bank Group consists of the companies set out in Note (92) "List of Shareholdings". Intra-group receivables and liabilities, as well as consolidated income and expenses, are not shown here.

The following list provides an overview of the balances of existing transactions with related parties:

€ mn	31 Dec 2022	31 Dec 2021
Management Board	–	–
Supervisory Board	–	–
Other related parties	0	16
Total	**0**	**16**

The other related parties item includes a receivable of € 0.1 million vis-à-vis the BauGrund/TREUREAL syndicate.

In addition, there were no further significant transactions within the meaning of IAS 24.

(84) Events after the reporting date

Aareon launched an early retirement programme in early February 2023; its financial effects are estimated at around € 17 million and count towards the total efficiency enhancement investment budget of around € 35 million.

There were no other material matters subsequent to the end of the reporting period that need to be disclosed at this point.

(85) Contingencies

By means of a Letter of Comfort in favour of the Monetary Authority of Singapore, Aareal Bank AG has undertaken to ensure that Aareal Bank Asia Ltd. is able to fulfil its obligations at any time.

(86) Disclosures pursuant to section 160 (1) no. 8 of the AktG

Pursuant to the German Securities Trading Act (WpHG), any investor whose shareholding in a listed company reaches, exceeds or falls short of certain threshold values in terms of voting rights (whether by purchase, sale or by any other means) must notify the Company and the German Federal Financial Supervisory Authority. The lowest threshold for this notification requirement is 3 %. 100 % of Aareal Bank AG shares are held in free float until the possible closing of the takeover offer by Atlantic BidCo GmbH.

As at 31 December 2022, we were aware of the following shareholders holding a share in the voting rights of at least 3 % pursuant to section 33 (1) and section 34 of the WpHG:

	Location	Voting rights from shares	Threshold reached on (according to notification)
Responsible entity			
Deka Investment GmbH	Frankfurt	9.60 %	22 May 2018
Daniel Křetínský (Vesa Equity Investment S.à r.l.)		7.80 %	10 November 2021
Atlantic Lux HoldCo S.à r.l.	Luxembourg	7.46 %	30 December 2022
VBL[1]	Karlsruhe	6.50 %	3 February 2015
Igor Kuzniar (Teleios Capital Partners LLC; Teleios Global Opportunities Master Fund, Ltd.)		5.06 %	23 April 2020
JPMorgan Chase & Co.	Wilmington, Delaware	5.02 %	12 August 2022
Morgan Stanley	Wilmington, Delaware	5.01 %	19 December 2022
Dimensional Holdings Inc.	Austin, Texas	4.13 %	19 January 2022
Talomon Capital Limited	London	3.25 %	2 February 2022
Duke University	Durham, North Carolina	3.12 %	9 May 2022

[1] Shares are managed by Deka and are therefore included in Deka's holding.

(87) Declaration of Compliance in accordance with Section 161 of the AktG

The Management Board and the Supervisory Board issued the Declaration of Compliance as stipulated in section 161 of the AktG, and made this Declaration available to shareholders. It is available to the public on the Company's website on www.aareal-bank.com/en/about-us/corporate-governance/declaration-of-compliance.

(88) Employees

The number of Aareal Bank Group employees is shown below:

	31 Dec 2022[1]	Average 1 Jan - 31 Dec 2022[2]	31 Dec 2021[1]	Average 1 Jan - 31 Dec 2021[2]
Salaried employees	3,143	3,067	2,998	2,905
Executives	173	169	172	172
Total	**3,316**	**3,236**	**3,170**	**3,077**
of which: part-time employees	609	597	590	586

[1] This number does not include 28 employees of the hotel business (31 December 2021: 30 employees).
[2] This number does not include 154 employees of the hotel business (1 January to 31 December 2021: 88 employees).

(89) Nature and extent of interests in unconsolidated structured entities

In accordance with IFRS 12.24, the nature and extent of interests in unconsolidated structured entities as well as the nature of, and changes in, the risks associated with such interests have to be disclosed in the consolidated financial statements. An interest in a structured entity arises from a contractual and/or non-contractual involvement which entitles the Group to receive variable returns from the relevant activities of the structured entity. Examples for this are equity or debt instruments of structured entities or the provision of financing, collateral and guarantees to structured entities.

Structured entities are companies where voting rights or similar rights are not the dominant factor to assess control of the company. The relevant activities of structured entities are directed by means of contractual arrangements; any voting rights relate to administrative tasks only. Structured entities are characterised by features or attributes such as restricted activities, a narrow and well-defined objective and/or insufficient equity. In addition, structured entities may relate to financings in the form of multiple contractually linked instruments to investors that create concentrations of credit or other risks. Examples of structured entities are securitisation vehicles, asset-backed financings and some investment funds.

Aareal Bank Group mainly interacts with structured entities such as open-ended property funds and leased property companies. In this context, the Group provides financing to structured entities in the form of loans or guarantees. In the following table, strategic investments made by the Group are shown under “Other”. The leased property companies were established by third parties for the financing of particular transactions and have the legal form of a German private limited company with a limited liability company as general partner (GmbH & Co KG). In the year under review and the previous year, Aareal Bank Group did not provide any non-contractual support for unconsolidated structured entities.

To the extent that this is relevant, the following table shows the carrying amounts of assets and liabilities recognised by Aareal Bank Group as at the reporting date as well as the existing off-balance sheet risk exposures that relate to unconsolidated structured entities. The carrying amounts of the assets and off-balance sheet items correspond to the Group’s maximum loss exposure from interests in unconsolidated structured entities (without taking into account collateral). The size of the structured entities was determined on the basis of the net fund assets for open-ended property funds and other vehicles and on the basis of total assets for leased property companies.

31 December 2022

€ mn	Open-ended property funds	Leased property companies	Other	Total
Assets				
Loan receivables	10	15	5	**30**
Off-balance sheet exposures				
Loan commitments and guarantees (nominal value)	–	–	1	**1**
Size range of structured units	**€ 1,285 million**	**€ 47 million**	**€ 1 million – € 41 million**	

31 December 2021

€ mn	Open-ended property funds	Leased property companies	Other	Total
Assets				
Loan receivables	30	16	8	**54**
Off-balance sheet exposures				
Loan commitments and guarantees (nominal value)	–	–	2	**2**
Size range of structured units	**€ 242 million – € 1,247 million**	**€ 3 million – € 47 million**	**€ 1 million – € 36 million**	

(90) Disclosures on material non-controlling interests

Advent International holds around 30% of the shares in Aareon AG. Voting rights are attached to the shares. Consolidated net income attributable to the non-controlling interest amounted to € -2 million (2021: € 3 million). Aareon's segment assets (before consolidation) amount to € 694 million (2021: € 549 million), comprising € 523 million (2021: € 361 million) in intangible assets, € 79 million (2021: € 73 million) in financial assets, and € 40 million (2021: € 71 million) in property and equipment. Assets are backed by equity of € 195 million (2021: € 209 million). In addition, there are lease liabilities of € 28 million (2021: € 62 million) and € 48 million (2021: € 54 million) in provisions. For further details, please refer to the explanations in relation to the Aareon segment.

(91) Country-by-Country Reporting

The disclosure requirements refer to information on registered office, revenue, profit or loss, taxes on profit or loss, received government assistance as well as wage and salary earners of Aareal Bank AG, together with its foreign branches and domestic and foreign subsidiaries included in the reporting entity-structure, prior to consolidation.

For this purpose, the Bank's entities – subsidiaries as well as Aareal Bank AG's foreign branches – are allocated to our three business segments, Structured Property Financing, Banking & Digital Solutions and Aareon.

Aareal Bank defines the branch offices' operating profit, which is used as a proxy for revenue, as the sum of the following consolidated income statement items (in accordance with IFRSs):

- Net interest income before loss allowance
- Net commission income
- Net derecognition gain or loss

- Net gain or loss from financial instruments (fvpl)
- Net gain or loss from hedge accounting
- Net gain or loss from investments accounted for using the equity method;
- Net other operating income/expenses

Taxes disclosed are tax expenses in accordance with IFRSs.

The number of wage and salary earners relates to average full-time equivalent staff employed during the financial year.

The following overview shows all countries where Aareal Bank AG has offices, including foreign branches and subsidiaries. Please refer to the list of shareholdings as regards the allocation of individual subsidiaries to the relevant country of domicile. Aareal Bank AG's foreign branches are located in France, Ireland, Italy, Poland, Sweden and the UK.

2022

	Revenues	Profit/loss before taxes	Taxes on profit or loss	Number of wage and salary earners
	€ mn	€ mn	€ mn	Full-time equivalents
Structured Property Financing segment	**650**	**200**	**70**	**777**
Belgium	–	–	–	–
Germany	480	68	48	682
France	14	10	3	9
United Kingdom	8	5	1	7
Ireland	1	2	0	1
Italy	19	-2	-5	27
Poland	6	4	1	6
Sweden	1	0	0	3
Singapore	12	10	1	7
US	111	103	21	35
Consolidation	-2	–	–	–
Banking & Digital Solutions segment	**111**	**42**	**14**	**294**
Germany	121	42	14	294
Consolidation	-10	–	–	–
Aareon segment	**241**	**-3**	**2**	**1,901**
Germany	138	-1	-2	1,007
Finland	0	0	–	–
France	30	7	3	226
United Kingdom	20	-3	0	246
Netherlands	41	6	1	310
Norway	0	0	–	2
Sweden	12	-12	0	110
Consolidation	–	–	–	–
Total	**1,002**	**239**	**86**	**2,972**

Government assistance was not received in the financial year 2022 (2021: –).

Aareal Bank Group's return on assets, calculated as the ratio of net profit to total assets, was 0.26 % as at the record date.

2021

	Revenues	Profit/loss before taxes	Taxes on profit or loss	Number of wage and salary earners
	€ mn	€ mn	€ mn	Full-time equivalents
Structured Property Financing segment	**541**	**154**	**82**	**752**
Belgium	3	3	–	–
Germany	376	107	63	662
France	8	4	1	8
United Kingdom	10	6	1	5
Ireland	1	0	0	1
Italy	16	-60	-10	27
Poland	8	4	1	5
Sweden	4	6	1	3
Singapore	6	4	0	7
US	112	80	25	34
Consolidation	-3	–	–	–
Banking & Digital Solutions segment	**59**	**-4**	**-1**	**271**
Germany	69	-4	-1	271
Consolidation	-10	–	–	–
Aareon segment	**216**	**5**	**6**	**1,794**
Germany	126	1	1	973
Finland	–	-2	–	3
France	31	8	2	220
United Kingdom	16	-1	1	205
Netherlands	35	6	2	291
Norway	1	0	0	4
Sweden	7	-7	0	98
Consolidation	–	–	–	–
Total	**816**	**155**	**87**	**2,817**

(92) List of shareholding

The list of shareholdings is prepared pursuant to section 313 (2) of the HGB. The disclosures in relation to the companies' equity and earnings are retrieved from the financial statements based on the respective local financial reporting principles.

31 December 2022

No.	Company name	Registered office	Shareholding	Equity	Results
			%	€ mn	€ mn
1	Aareal Bank AG	Wiesbaden			
	I. Fully-consolidated subsidiaries				
2	Aareal Bank Asia Ltd.	Singapore	100.0	SGD 47.2 mn	SGD 13.8 mn [1]
3	Aareal Beteiligungen AG	Frankfurt	100.0	167.0	0.0 [3]
4	Aareal Capital Corporation	Wilmington	100.0	USD 672.4 mn	USD 29.9 mn [4]
5	Aareal Estate AG	Wiesbaden	100.0	2.9	0.0 [3]
6	Aareal First Financial Solutions AG	Mainz	100.0	7.2	0.2 [3]
7	Aareal Gesellschaft für Beteiligungen und Grundbesitz Erste mbH & Co. KG	Wiesbaden	94.9	3.0	0.1 [1]
8	Aareal Holding Realty LP	Wilmington	100.0	USD 243.4 mn	USD -3.1 mn [4]
9	Aareal Immobilien Beteiligungen GmbH	Wiesbaden	100.0	416.7	0.0 [3]
10	Aareon AG	Mainz	58.7	138.7	-3.2 [1]
11	Aareon Deutschland GmbH	Mainz	100.0	35.9	0.0 [3]
12	Aareon Finland Oy	Helsinki	100.0	0.0	-0.1 [1]
13	Aareon France S.A.S.	Meudon-la Forêt	100.0	14.5	4.1 [1]
14	Aareon GAP Beteiligungsgesellschaft mbH	Mainz	100.0	-1.6	-1.2 [1]
15	Aareon Holding France SAS	Meudon-la Forêt	100.0	0.0	0.0 [1]
16	Aareon Nederland B.V.	Emmen	100.0	30.1	4.8 [1]
17	Aareon Norge AS	Oslo	100.0	NOK 4.9 mn	NOK -2.2 mn [1]
18	Aareon Österreich GmbH	Vienna	100.0	0.4	-0.1 [1]
19	Aareon SMB HUB UK Limited	Kenilworth	100.0	GBP 39.3 mn	GBP -0.2 mn [1]
20	Aareon Sverige AB	Mölndal	100.0	SEK 28 mn	SEK -66.7 mn [1]
21	Aareon UK Ltd.	Coventry	100.0	GBP 9.6 mn	GBP -0.9 mn [1]
22	Alexander Quien Nova GmbH	Bremen	100.0	0.1	0.0 [1]
23	Arthur Online Ltd.	London	100.0	GBP 4.2 mn	GBP -1.4 mn [1]
24	Arthur Southeast Asia Co., Ltd.	Bangkok	100.0	THB 6.8 mn	THB 2.7 mn [1]
25	AV Management GmbH	Mainz	100.0	0.4	0.0 [3]
26	BauContact Immobilien GmbH	Wiesbaden	100.0	15.6	0.7 [1]
27	BauGrund Immobilien-Management GmbH	Bonn	100.0	0.5	0.0 [3]
28	BauSecura Versicherungsmakler GmbH	Hamburg	51.0	4.4	4.3 [1]
29	BVG – Grundstücks- und Verwertungsgesellschaft mit beschränkter Haftung	Frankfurt	100.0	5.3	0.0 [3]
30	CalCon Deutschland GmbH	Munich	100.0	6.5	0.8 [1]
31	CalCrom S.R.L.	Iasi	83.3	0.2	0.1 [1]
32	Cave Nuove S.p.A.	Rome	100.0	-37.5	-2.0 [1]
33	collect Artificial Intelligence GmbH	Hamburg	100.0	2.7	0.0 [3]
34	CubicEyes B.V.	Maarssen	100.0	-0.1	-0.1 [1]
35	Curo Software Ltd.	Warrenpoint	100.0	0.0	-0.1 [1]

[1] Preliminary figures as at 31 December 2022; [2] Equity and results as at 31 December 2021;
[3] Profit and loss transfer agreement/control and profit transfer agreement; [4] Disclosures in accordance with IFRSs; [5] Joint operation

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No.	Company name	Registered office	Shareholding	Equity	Results
			%	€ mn	€ mn
36	DBB Inka	Dusseldorf	100.0	97.8	0.0
37	Deutsche Bau- und Grundstücks-Aktiengesellschaft	Berlin	100.0	0.9	-2.9 [1]
38	Deutsche Structured Finance GmbH	Wiesbaden	100.0	1.5	-0.5 [1]
39	DHB Verwaltungs AG	Wiesbaden	100.0	5.1	0.0 [3]
40	FIRE B.V.	Utrecht	60.0	0.2	0.1 [1]
41	Galleria City Holding Company LLC	Wilmington	95.0	USD 150.3 mn	USD -5.9 mn [4]
42	Galleria City Holding Company Member 2 LLC	Wilmington	95.0	USD 0.0	USD 0.0 [4]
43	Galleria City Partners LP	Wilmington	95.0	USD 147.5 mn	USD 0.0 [4]
44	Galleria Manager Realty LLC	Wilmington	100.0	USD 0.0	USD 0.0 [4]
45	GAP Gesellschaft für Anwenderprogramme und Organisationsberatung mbH	Bremen	100.0	4.0	2.3 [1]
46	GEV Besitzgesellschaft mbH	Wiesbaden	100.0	3.0	0.0 [3]
47	GEV Beteiligungsgesellschaft mbH	Wiesbaden	100.0	0.1	0.0 [1]
48	Houses2021 MEP Beteiligungs GmbH	Frankfurt	65.6	137.9	0.0 [1]
49	Houses2021 MEP Verwaltungs GmbH	Frankfurt	70.0	0.2	0.0 [1]
50	IV Beteiligungsgesellschaft für Immobilieninvestitionen mbH	Wiesbaden	100.0	2.5	0.0 [1]
51	Izalco Spain S.L.	Madrid	100.0	10.4	0.2 [1]
52	La Sessola Holding GmbH	Wiesbaden	100.0	94.9	0.0 [1]
53	La Sessola S.r.l.	Rome	100.0	69.4	-6.3 [1]
54	La Sessola Service S.r.l.	Rome	100.0	1.0	2.0 [1]
55	Locoia GmbH	Hamburg	100.0	-0.1	0.0 [1]
56	Manager Realty LLC	Wilmington	100.0	USD 0.0 mn	USD 0.0 [4]
57	Mary BidCo AB	Stockholm	100.0	SEK 41.4 mn	SEK -70.5 mn [1]
58	Mercadea S.r.l.	Rome	100.0	15.1	0.1 [1]
59	Mirante S.r.l.	Rome	100.0	0.1	0.0 [1]
60	Momentum Software AB	Stockholm	100.0	SEK 41.4 mn	SEK 7.3 mn [1]
61	Momentum Software Group AB	Stockholm	96.3	SEK 163.9 mn	SEK -0.3 mn [1]
62	Northpark Realty LP	Wilmington	100.0	USD 92.1 mn	USD -0.2 mn [4]
63	OSRE B.V.	Amsterdam	51.2	1.9	0.9 [1]
64	Participation Achte Beteiligungs GmbH	Wiesbaden	100.0	3.8	0.0 [3]
65	Participation Elfte Beteiligungs GmbH	Wiesbaden	100.0	0.0	0.0 [3]
66	Participation Zehnte Beteiligungs GmbH	Wiesbaden	100.0	10.6	0.0 [3]
67	Participation Zwölfte Beteiligungs GmbH	Wiesbaden	100.0	0.0	0.0 [3]
68	phi-Consulting GmbH	Bochum	100.0	0.2	0.0 [3]
69	plusForta GmbH	Dusseldorf	100.0	0.2	0.0 [3]
70	RentPro Ltd.	Warrenpoint	100.0	0.0	0.0 [1]
71	Rumpf IT-Service GmbH	Ingolstadt	100.0	0.2	0.0 [1]
72	Scale Layer GmbH	Wiesbaden	100.0	0.8	0.0 [1]
73	Sole Sopra Cinquina S.r.l.	Rome	100.0	7.9	0.0 [1]
74	Tactile Limited	London	100.0	GBP 1.3 mn	GBP 0.5 mn [1]
75	Terrain-Aktiengesellschaft Herzogpark	Wiesbaden	100.0	4.7	0.0 [3]
76	Terrain Beteiligungen GmbH	Wiesbaden	94.0	62.7	2.2 [1]
77	Tintoretto Rome S.r.l.	Rome	100.0	40.2	-1.0 [1]
78	Westdeutsche Immobilien Servicing AG	Mainz	100.0	50.0	0.0 [3]
79	wohnungshelden GmbH	Munich	100.0	0.4	0.0 [1]
80	WP Galleria Realty LP	Wilmington	100.0	USD 0.0 mn	USD 0.0 mn [4]

[1] Preliminary figures as at 31 December 2022; [2] Equity and results as at 31 December 2021;
[3] Profit and loss transfer agreement/control and profit transfer agreement; [4] Disclosures in accordance with IFRSs; [5] Joint operation

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No.	Company name	Registered office	Shareholding	Equity	Results
			%	€ mn	€ mn
	II. Joint arrangements				
81	ImmoProConsult GmbH[5]	Leverkusen	50.0	0.0	0.0 [1]
82	Konsortium BauGrund/TREUREAL[5]	Bonn	50.0	0.0	0.0 [1]
	III. Associates				
83	DSF PP Justizzentrum Thüringen GmbH & Co. KG	Bremen	48.4	0.2	0.0 [2]
84	Ecaria GmbH	Berlin	35.9	0.2	-0.3 [1]
85	Houses2021 Management Beteiligungs GmbH & Co. KG	Wiesbaden	7.4	8.6	0.0 [1]
86	Mount Street Group Limited	London	20.0	GBP -5.8 mn	GBP -2.6 mn [1]
87	MS Investment Management Limited	London	20.0	GBP 1.49 mn	GBP -0.8 mn [1]
88	objego GmbH	Essen	40.0	3.4	-4.6 [1]
89	Westhafen Haus GmbH & Co. Projektentwicklungs KG	Frankfurt	25.0	0.0	0.2 [2]
	IV. Other enterprises				
90	blackprint Booster Fonds International GmbH & Co. KG	Frankfurt	49.9	0.7	0.0 [1]
91	Houses Nominee Ltd.	London	70.0	0.0	0.0 [1]
92	PropTech1 Fund I GmbH & Co. KG	Berlin	9.6	50.2	-1.8 [1]

[1] Preliminary figures as at 31 December 2022; [2] Equity and results as at 31 December 2021;
[3] Profit and loss transfer agreement/control and profit transfer agreement; [4] Disclosures in accordance with IFRSs; [5] Joint operation

(93) Executive Bodies of Aareal Bank AG

The members of the Management Board and the Supervisory Board disclose their offices held, in accordance with the requirements set out in section 285 No. 10 of the HGB in conjunction with section 125 (1) sentence 5 of the AktG.

Composition of Supervisory Board's committees

Executive and Nomination Committee	
Prof. Dr Hermann Wagner	Chairman
Barbara Knoflach	Deputy Chairwoman
Hans-Hermann Lotter	
Marika Lulay	
Klaus Novatius	
José Sevilla Álvarez	

Remuneration Control Committee	
Prof. Dr Hermann Wagner	Chairman
Hans-Hermann Lotter	Deputy Chairman
Henning Giesecke	
Denis Hall	
Petra Heinemann-Specht	
Klaus Novatius	

Audit Committee	
Prof. Dr Hermann Wagner	Chairman
José Sevilla Álvarez	Deputy Chairman
Henning Giesecke	
Petra Heinemann-Specht	
Hans-Hermann Lotter	
Sylvia Seignette	

Technology and Innovation Committee	
Marika Lulay	Chairwoman
Barbara Knoflach	Deputy Chairwoman
Denis Hall	
Thomas Hawel	
Jan Lehmann	
José Sevilla Álvarez	

Risk Committee	
Sylvia Seignette	Chairman
Denis Hall	Deputy Chairman
Henning Giesecke	
Petra Heinemann-Specht	
Barbara Knoflach	
Prof. Dr Hermann Wagner	

Supervisory Board

Prof. Dr Hermann Wagner, Chairman of the Supervisory Board
German Chartered Accountant, tax consultant

(Membership in other statutory supervisory boards)		
capsensixx AG (subsidiary of PEH Wertpapier AG)	Member of the Supervisory Board	
PEH Wertpapier AG	Member of the Supervisory Board	
Squadra Immobilien GmbH & Co. KGaA	Chairman of the Supervisory Board	

Henning Giesecke since 31 August 2022
Former Chief Risk Officer of UniCredit S.p.A. and UniCredit Bank AG

(Membership in other statutory supervisory boards)		
Linde+Wiemann Holding SE	Deputy Chairman of the Supervisory Board	
The Social Chain AG	Deputy Chairman of the Supervisory Board	
The Social Chain Group AG (subsidiary of The Social Chain AG)	Deputy Chairman of the Supervisory Board	until 31 December 2022

(Membership on comparable German and foreign supervisory bodies)		
Erste Abwicklungsanstalt AöR	Member of the Board of Directors	

Dennis Hall
Former Chief Risk Officer Global Consumer Banking of GE Capital EMEA

(Membership on comparable German and foreign supervisory bodies)		
Auxmoney Europe Holding Ltd.	Member of the Board of Directors	
Moneta Money Bank A.S.	Member of the Supervisory Board	
Skipton Building Society	Member of the Board of Directors	

Thomas Hawel*
Aareon Deutschland GmbH

(Membership in other statutory supervisory boards)		
Aareon Deutschland GmbH (Aareal Bank Group)	Deputy Chairman of the Supervisory Board	

Petra Heinemann-Specht*
Aareal Bank AG

Barbara Knoflach, Deputy Chairwoman of the Supervisory Board since 31 August 2022
Former Global Head der BNP Paribas Real Estate Investment Management and Deputy Chief Executive Officer of BNP Paribas Real Estate S.A.

(Membership in other statutory supervisory boards)		
Landmarken AG	Member of the Supervisory Board	

(Membership on comparable German and foreign supervisory bodies)		
CTP N.V.	Chairman of the Board of Directors	
Swiss Prime Site AG	Member of the Board of Directors	

* Employee representative member of the Supervisory Board of Aareal Bank AG

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Jan Lehmann*
Aareon Deutschland GmbH

(Membership in other statutory supervisory boards)	
Aareon Deutschland GmbH (Aareal Bank Group)	Member of the Supervisory Board

Hans-Hermann Lotter since 31 August 2022
Self-employed consultant for private equity investments, mergers, takeovers and restructurings, and Managing Director of Atlantic BidCo GmbH

(Membership in other statutory supervisory boards)	
Hermes Germany GmbH	Member of the Supervisory Board
TK Elevator GmbH	Chairman of the Supervisory Board
(Membership on comparable German and foreign supervisory bodies)	
Vertical Topco S.à. r.l. (subsidiary of TK Elevator GmbH)	Member of the Board of Directors

Marika Lulay, Chairwoman of the Technology and Innovation Committee since 31 August 2022
Chief Executive Officer and Managing Director of GFT Technologies SE

(Membership in other statutory supervisory boards)	
EnBW AG	Member of the Supervisory Board
(Membership on comparable German and foreign supervisory bodies)	
GFT Technologies SE	Member of the Board of Directors

Klaus Novatius*, Deputy Chairman of the Supervisory Board
Aareal Bank AG

Sylvia Seignette, Chairman of the Risk Committee
Former CEO for Germany and Austria, Crédit Agricole CIB (formerly Calyon)

José Sevilla Álvarez since 31 August 2022
Former Chief Executive Officer of Bankia S.A.

(Membership on comparable German and foreign supervisory bodies)	
Renta 4 Banco S.A.	Member of the Board of Directors
Teide Ltd.	Member of the Board of Directors

Retired members

Richard Peters, Deputy Chairman of the Supervisory Board until 31 August 2022
President and Chairman of the Management Board of Versorgungsanstalt des Bundes und der Länder

Jana Brendel until 31 August 2022
Chief Information Officer Group Services of ING Groep N.V.

(Membership in other statutory supervisory boards)	
IQ-optimize Software AG (subsidiary of 1&1 Drillisch AG)	Chairman of the Supervisory Board

* Employee representative member of the Supervisory Board of Aareal Bank AG

Holger Giese — 14 January 2022 to 31 August 2022
Lawyer, former General Counsel Private Bank Germany at Deutsche Bank AG

(Membership in other statutory supervisory boards)

Bitcoin Group SE	Member of the Supervisory Board	since 1 July 2022
Futurum Bank AG (subsidiary of Bitcoin Group SE)	Member of the Supervisory Board	since 1 July 2022

Friedrich Munsberg — 14 January 2022 to 31 August 2022
Former Managing Director of KOFIBA Kommunalfinanzierungsbank GmbH (formerly Dexia Kommunalbank Deutschland AG)

Elisabeth Stheeman — until 31 August 2022
External Member of the Financial Policy Committee and of the Financial Market Infrastructure Board, Bank of England

(Membership in other statutory supervisory boards)

alstria office REIT-AG	Member of the Supervisory Board

(Membership on comparable German and foreign supervisory bodies)

Edinburgh Investment Trust Plc	Member of the Board of Directors

Dr Ulrich Theileis — 14 January 2022 to 31 August 2022
Partner and Chief Operating Officer, Audit & Assurance, Deloitte GmbH Wirtschaftsprüfungsgesellschaft

(Membership on comparable German and foreign supervisory bodies)

Sächsische Aufbaubank	Member of the Board of Directors

* Employee representative member of the Supervisory Board of Aareal Bank AG

Management Board

Jochen Klösges, Chairman of the Management Board (CEO)
Banking & Digital Solutions, Corporate Affairs, Group Audit, Group Communications & Governmental Affairs, Group Human Resources & Infrastructure, Group Strategy, Group Technology

(Membership in other statutory supervisory boards)

Aareon AG (Aareal Bank Group)	Chairman of the Supervisory Board

(Membership on comparable German and foreign supervisory bodies)

Oest-Stiftung (Oest Group)	Member of the foundation and administrative board

Nina Babic, Member of the Management Board (CRO) — since 1 July 2022
Credit Risk, Credit & Transaction Management, Information Security & Data Protection, Non-Financial Risks including Compliance, Regulatory Affairs, Risk Controlling, USA-Credit Management, Valuation & Research, Workout / Non Core Assets

(Membership in other statutory supervisory boards)

Aareal Estate AG (Aareal Bank Group)	Deputy Chair of the Supervisory Board
HypZert GmbH	Deputy Chair of the Supervisory Board
Terrain-AG Herzogenpark (Aareal Bank Group)	Chairman of the Supervisory Board

(Membership on comparable German and foreign supervisory bodies)

Aareal Capital Corporation (Aareal Bank Group)	Member of the Board of Directors

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Marc Hess, Member of the Management Board (CFO)
Finance & Controlling, Investor Relations, Treasury

(Membership in other statutory supervisory boards)		
Aareal Beteiligungen AG (Aareal Bank Group)	Chairman of the Supervisory Board	since 23 March 2022
	Member of the Supervisory Board	until 23 March 2022
Aareon AG (Aareal Bank Group)	Member of the Supervisory Board	

Christof Winkelmann, Member of the Management Board (CMO)
Aareal Asia/Pacific, Business Management & Economic Analysis, Euro Hub, Loan Markets & Syndication, Non-Euro Hub, Special Property Finance I and II, Strategy & Business Development, USA Origination

(Membership in other statutory supervisory boards)	
Aareal Estate AG (Aareal Bank Group)	Chairman of the Supervisory Board

(Membership on comparable German and foreign supervisory bodies)	
Aareal Bank Asia Ltd. (Aareal Bank Group)	Chairman of the Board of Directors
Aareal Capital Corporation (Aareal Bank Group)	Chairman of the Board of Directors

Retired members

Christiane Kunisch-Wolff, Member of the Management Board (CRO)	until 30 June 2022

Wiesbaden, 6 March 2023

The Management Board

Jochen Klösges

Nina Babic

Marc Hess

Christof Winkelmann

Independent Auditor's Report

Independent Auditor's Report

To Aareal Bank AG, Wiesbaden, Germany

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of Aareal Bank AG, Wiesbaden and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2022, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from 1 January to 31 December 2022, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Aareal Bank AG for the financial year from 1 January to 31 December 2022.

In accordance with the German statutory requirements we have not audited the contents of the elements of the group management report referred to in the notes to the audit opinion.

The group management report contains references not required by law. In accordance with the requirements of German law, we have not audited the contents of the references named in the notes to the auditor's opinion and the information relating to references.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2022, and of its financial performance for the financial year from 1 January to 31 December 2022, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the contents of the elements of the group management report named in the notes to the audit opinion. The group management report contains references not required by law. Our audit opinion does not cover the references named in the notes to the audit opinion and information relating to the references.

Pursuant to Section 322 (3) sentence 1 HGB [Handelsgesetzbuch: German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and the group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and the group management report in accordance with Section 317 HGB and the EU Audit Regulation (No. 537/2014; hereinafter the "EU-AR"), taking into account the German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. Furthermore, pursuant to Article 10 (2)(f) EU-AR we declare that we have not provided any prohibited non-audit services referred to in Article 5 (1) EU AR. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are such matters that, in our professional judgement, were the most significant in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2022. These matters were taken into account in connection with our audit of the consolidated financial statements as a whole and in forming our audit opinion; we do not provide a separate audit opinion on these matters.

■ Measurement of the bail-out purchases

For information on the accounting polices applied, please refer to Note 19 – Property, plant and equipment and 22 – Other assets.

RISK FOR THE FINANCIAL STATEMENTS

Property and land from previous loan exposures – known as bail-out purchases – are recognised under "Property, plant and equipment" and "Other assets" as at 31 December 2022 in the consolidated financial statements of Aareal Bank AG.

Depending on the development status of the bail-out purchases and property strategy, in line with IFRS there are different classifications of the bail-out purchases which have significant influence on the subsequent measurement of the bail-out purchase.

The bail-out purchases are held in property companies and, with one exception, are intended for sale in the ordinary course of business. The subsequent measurement takes place in line with IAS 2 at the lower of cost and net realisable value. One hotel property is being used by the bank itself for rental purposes with the support of a third-party provider. The subsequent measurement is performed in line with IAS 16 on the basis of the cost model. In addition, if there are indications of impairment it must be assessed whether the carrying amount exceeds the recoverable amount and thus whether impairment is required. The properties are either hotel, residential office or retail properties as well as land for project developments of these property types.

In the context of subsequent measurement, the Bank examined the recoverability of the properties and land at each reporting date. In doing so, the Bank mandates independent experts and considers their methodology and results. The market values of the properties are derived as the present value of future cash flows (DCF method or residual value method for project developments), or on the basis of space-related comparable values.

The projections thus integrate various assumptions that are subject to uncertainty, e.g. property completion, leasing and marketing. Furthermore, the corona pandemic continues to produce a high level of uncertainty relating to future development, particularly for hotel and retail properties.

These assumptions which are subject to estimating uncertainty have a substantial impact on the net realisable value and the recoverable amount of the bail-out purchases and thus also on the assessment of the recoverability of the carrying amounts of the bail-out purchases.

For the consolidated financial statements there is the risk that inappropriate subsequent measurement is implemented on the basis of an incorrect classification of the bail-out purchases. There is also the risk that the calculating methods underlying the appraisals are inappropriate or that as a result of the inappropriate exercise of judgement resulting from the assumptions subject to uncertainty impairment of the bail-out purchases is not identified.

OUR AUDIT APPROACH

Based on our risk assessment and the assessment of the error risks, we based our audit opinion on both control-based audit procedures and substantive audit procedures.

Based on our audit we initially examined the classification of the bail-out purchases in line with IFRS and thus the accuracy of the subsequent measurement.

We also examined the Bank's controls and processes to make a plausibility check on the appraisals obtained in terms of appropriateness and effectiveness.

Furthermore, with the involvement of KPMG property experts, we examined selected appraisals, in particular in respect to the following focal points:

- Assessment of the expertise, ability and objectivity the external experts
- Assessment of the general appropriateness of the measurement methods used
- Reasonableness of material assumptions subject to assessment uncertainty used by the experts.

In addition, we audited whether the management's currently envisaged development plans and assumptions are appropriate and were appropriately integrated into the appraisals.

OUR CONCLUSIONS
The classification of the bail-out purchases is appropriate. The measurement methods used in the appraisals which are subject to assessment uncertainty are appropriate and proper.

Recoverability of goodwill from the Aareon subgroup

For information on the accounting polices applied, please refer to Note 18 – Intangible assets (in the section on accounting policies). Information on the impairment test is described in Note 48 – Intangible assets (in the balance sheet disclosures section).

RISK FOR THE FINANCIAL STATEMENTS
As at 31 December 2022, goodwill from the Aareon subgroup amounted to € 369 million (prior year: € 232 million).

The recoverability of the goodwill of the Aareon subgroup is tested annually at the level of six cash-generating units (CGUs) separated into the regions of the Aareon subgroup. To this end, the carrying amount is compared with the recoverable amount of the CGU group. If the carrying amount is higher than the recoverable amount, there is a need for impairment. The recoverable amount is the higher of the fair value less costs to sell and the value in use of the CGU group. The reporting date for the impairment test is 31 December 2022.

The goodwill impairment test is complex and based on a number of discretionary assumptions. In particular these include the expected business and earnings performance of the individual CGUs broken down by region for the next five years, the assumed long-term growth rates and the discount rate applied.

In the financial year 2022, as a result of various new acquisitions goodwill at the level of Aareon subgroups increased by € 137 million to € 369 million. The increase is due primarily to the acquisition of Momentum Software Group AB. Furthermore, a major part of the goodwill resulted from GGUs which include start-ups.

For the consolidated financial statements there is the risk that the underlying calculation methods are not appropriate or not in line with the measurement principles to be applied. There is also the risk that a goodwill impairment as at the reporting date is not identified as a result of an inappropriate exercise of the judgement described.

OUR AUDIT APPROACH
Based on our risk assessment and the assessment of the error risks, we planned to base our audit opinion on both control-based audit procedures and substantive audit procedures.

Based on our audit we assessed the processes and the Internal Control System (ICS) relating to the corporate planning for identifying impairment requirements. Alongside the substantive audit procedures described below, we included the evidence obtained in our audit opinion.

We examined the appropriate transfer of corporate planning into the goodwill impairment tests.

In addition, with the involvement of our measurement specialists we assessed, among other matters, the appropriateness of the material assumptions and the calculation methodology of the goodwill impairment tests. To do this we discussed with those responsible for planning in particular the anticipated business and earnings development and the long-term growth rates assumed. In addition, we assessed the consistency of the assumptions against external market estimates.

Furthermore, we satisfied ourselves of the previous forecast quality of the companies by comparing planning of previous financial years with the results actually realised and analysed deviations. As slight changes to the discount rate can have a material impact on the results of the impairment tests, we compared the assumptions and data underlying the discount rate, in particular the risk-free interest rate, the market risk premiums and the beta factor with our own assumptions and publicly available data.

We verified the mathematical accuracy of the measurement model used by the Company.

In order to take account of the existing forecast uncertainty, we examined the impact of possible changes in the discount rate, the earnings trend and the long-term growth rate on the recoverable amount by calculating alternative scenarios and comparing them with the values obtained by the Company (sensitivity analysis).

OUR CONCLUSIONS

The calculation method used for the goodwill impairment test is appropriate and is consistent with the measurement principles to be applied. The assumptions of the Company underlying the measurement are reasonable overall.

■ Appropriateness of the Stage 3 loan allowance

For information on the accounting polices applied, please refer to Note 9 – Recognition and measurement of financial instruments and Note 43 – Risk provisions and Note 65 – Disclosures on the credit risk.

RISK FOR THE FINANCIAL STATEMENTS

The credit business at Aareal Bank preponderately comprises large-volume commercial property financing for which Aareal Bank Group individually calculates the risk provisions. As at 31 December 2022, Aareal Bank Group recognises impairment on credit receivables of € 485 million. € 386 million of these relate to Stage 3 provisions. As at 31 December 2022, within Stage 3 there was a material exposure for financing two office properties in Moscow, Russia. As at the reporting date, Aareal Bank added a loss allowance of € 135.7 million for the exposure.

One of the material requirements of IFRS 9 – Financial Instruments is that the measurement of the risk provision generally takes place on the basis of probability-weighted scenarios and thus consequently also for credit-impaired debt instruments (the State 3 provision). In this context account is also to be taken of macro-economic factors on the default risks.

In determining scenarios by number and content, the derivation of expected cash flows in the respective scenario and assessment of the probability judgement is to be exercised to a material extent.

For this reason, it was particularly important for our audit that the number of scenarios observed was consistent with the complexity of situations determining the individual default risks including the dependency on macro-economic factors. We regarded it as equally important that the selection of the specific scenarios, the assessment of probabilities and the assessment of the expected cash flows in the respective scenarios was verifiable, appropriately substantiated and incontrovertibly implemented and documented.

OUR AUDIT APPROACH

Based on our risk assessment and the assessment of the error risks, we based our audit opinion on both control-based and substantive audit procedures. The audit procedures we performed thus included the following:

In a first step, we obtained a comprehensive overview on the development of the credit portfolio, the related counterparty default risks and the internal control system in relation to the identification, management, monitoring and recognition of the counterparty default risks in the credit portfolio.

Our audit included structural and functional examinations of the internal control system, in which respect we focussed on the assessment of the internal accounting methodology with reference to the measurement of credit-impaired receivables. For the IT and data processing systems deployed, using our IT specialists we examined the effectiveness of the regulations and procedures relating to a large number of IT applications and which support the effectiveness of the application controls.

On the basis of these findings, in the context of our selection of loan exposures defined on the basis of materiality and risk aspects, we also assessed the appropriateness of the number and contents of the scenarios used and the probabilities assigned to these scenarios. In our audit we took the complexity of the respective financing and the probable determined factors for the development of the exposure and verified if the assumptions underlying the scenarios were consistent with the forecasts on the general macro-economic situation used by Aareal Bank AG.

Then we assessed the cash flows derived for the scenarios. In our assessment, depending on the exposure strategy pursued, we included the measurement of collateral. In auditing the recoverability of the underlying collateral, in our assessment we deployed appraisals of independent experts and on the basis of publicly available data assessed whether the assumptions in the appraisals were appropriately derived.

With the selective involvement of KPMG property experts, we examined selected appraisals, in particular for the following key matters:

- Assessment of the expertise, ability and objectivity the external experts
- Assessment of the general appropriateness of the measurement methods used
- Reasonableness of material assumptions subject to assessment uncertainty used by the experts.

We concluded our audit by verifying the correct calculation of the expected credit loss.

OUR CONCLUSIONS

With the receivables assigned to Level 3 provisions , we come to the conclusion that the selection of the specific scenarios, the assessment of probabilities and the assessment of the expected cash flows in the respective scenarios, including the dependency on macro-economic factors, was verifiable, adequately substantiated and incontrovertibly implemented and documented.

Other Information

The Management Board and/or the Supervisory Board are responsible for the other information. The other information comprises:

- the elements and references of the group management report, the content and references of which have not been audited, referenced in the notes to the auditor's opinion.

Other information also comprises the annual report which we expect to be provided after the date of this auditor's report. The other information does not include the consolidated financial statements, the group management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information identified above and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report information audited for content or our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

If, based on work we have performed before on the basis of the other information obtained before the date of this auditor's report work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Management Board and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The Management Board is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the Management Board is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the Management Board is responsible for assessing the Group's ability to continue as a going concern. It also has the responsibility for disclosing, as applicable, matters related to going concern. In addition, it is responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the Management Board is responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the Management Board is responsible for such arrangements and measures (systems) as it has considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU-AR in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the Management Board and the reasonableness of estimates made by the Management Board and related disclosures.

- Conclude on the appropriateness of Management Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the Management Board in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by Management Board as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We provide those charged with governance with a statement that we have complied with the relevant independence requirements and discuss with them all relationships and other matters that can reasonably be assumed to affect our independence and if relevant, the actions taken to eliminate dangers to independence or safeguards put in place to protect against this.

From the matters that we have discussed with those charged with governance, we determine which matters were most important during the audit of the consolidated financial statements for the current reporting period and are therefore the key audit matters. We describe these matters in the independent auditor's report, unless laws or other legal provisions preclude their public disclosure.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the electronic file Aareal Bank_AG_KA+KLB_ESEF__2022-12-31.zip (SHA256 hash value: ff0a442e2883b07c903f3a2829ea0b3c37991d18faa1d79c6dbc3a4335d06812) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from 1 January to 31 December 2022 contained in the "Report on the audit of the consolidated financial statements and the group management report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described below. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The Management Board of the Company is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the Management Board of the Company is responsible for such internal control that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, on the technical specification for this electronic file.

- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited group management report.

- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Other Disclosures in Accordance with Article 10 EU-AR

We were elected by the Annual General Meeting on 31 August 2022 as auditor of the consolidated financial statements We were engaged by the Supervisory Board on 1 September 2022. We have been the Group auditor of Aareal Bank AG since the 2021 financial year.

We declare that the audit opinions contained in this auditor's report are consistent with the additional report to the Audit Committee according to Article 11 EU-AR (audit report).

Other Matter – Use of the Auditor's Report

Our auditor´s report must always be read together with the audited consolidated financial statements and the audited group management report as well as the examined ESEF documents. The consolidated financial statements and group management report converted to the ESEF format – including the versions to be published in company register – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Markus Winner.

Frankfur/Main, 8 March 2023

KPMG AG
Wirtschaftsprüfungsgesellschaft
(Original German version signed by:)

Wiechens	**Winner**
Wirtschaftsprüfer	**Wirtschaftsprüfer**
(German Public Auditor)	**(German Public Auditor)**

Appendix to the Independent Auditor's Report: the Components and References of the Group Management Report were not Audited for Content

We did not audit the following components of the management report:

- The corporate government statement referred to in the management report,
- the separate combined non-financial report referred to in the management report and
- the information on regulatory indicators pursuant to Basel IV (phase-in).

We did not audit the content of the references in the management report not required by law and the information related to the references:

Details on key employee indicators (in the "Our employees" section, table of HR data in the management report)

Responsibility Statement

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Wiesbaden, 6 March 2023

The Management Board

Jochen Klösges **Nina Babic**

Marc Hess **Christof Winkelmann**

Transparency

Transparency

Corporate Governance Statement pursuant to Sections 289f and 315d of the German Commercial Code (HGB) / Corporate Governance Report

Declaration of Compliance in accordance with Section 161 of the AktG

The Management Board and Supervisory Board of Aareal Bank AG declare, in accordance with section 161 of the AktG, that:

1. Aareal Bank AG has complied with the recommendations of the Government Commission "German Corporate Governance Code" (as amended and published in the German Federal Gazette on 20 March 2020) – except for the restrictions set out below – between the issue of the last Declaration of Compliance in December 2021 and until 27 June 2022:

   a) Pursuant to recommendation G. 10 sentence 2, Management Board members shall have access to granted long-term variable remuneration components only after a period of four years. In contrast to the draft version dated 22 May 2019, the Government Commission refrained from defining the term 'long-term variable remuneration' in its final version.

   According to the definition in the version dated 22 May 2019, typical performance indicators for long-term variable remuneration were, inter alia, "long-term financial success (profitability and growth with multiple-year measurement basis), non-financial success as prerequisite for subsequent financial success [...], implementation of the corporate strategy [etc.]."

   Within Aareal Bank's remuneration system, all targets are derived from the strategy and measured over a period of three years. In line with the definition provided in the draft version dated 22 May 2019, Aareal Bank's entire variable remuneration would classify as long-term. The three-year target determination yields an imputed amount of which only 20 % is paid out directly, whereas the remaining 80 % is paid out in several tranches and over a total period of six years.

   This means that most of the long-term variable remuneration is accessible at the earliest after four years and at the latest after nine years, thus complying with the Code's draft version. However, in the absence of the definition having been adopted – and the associated imprecise recommendation – it is not clear whether Aareal Bank's remuneration structure meets the Code expectations. As a result, and as a precautionary measure, we declare a deviation from recommendation G. 10 sentence 2.

   b) According to recommendation D. 4 sentence 2, the Chairman of the Supervisory Board shall not chair the Audit Committee. On 23 November 2021, the Supervisory Board of Aareal Bank elected Prof. Dr Hermann Wagner to succeed Ms Korsch as Chairman after she had resigned from her office with immediate effect. Prof. Dr Wagner has presided over the Audit Committee since his appointment as member of the Supervisory Board in 2015. On account of his many years as an auditor and tax advisor, as well as his extensive experience as Chairman of the Audit Committee, Prof. Dr Wagner continues to exercise this position.

2. Since 27 June 2022, all recommendations of the Government Commission "German Corporate Governance Code" (as amended and published in the German Federal Gazette on 27 June 2022) have been complied with – except for the restriction set out below:

   a) Pursuant to recommendation G. 10 sentence 2, Management Board members shall have access to granted long-term variable remuneration components only after a period of four years. In contrast to the draft version dated 22 May 2019, the Government Commission refrained from defining the term 'long-term variable remuneration' in its final version.

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b) According to recommendation D. 3 sentence 5, the Chairman of the Supervisory Board shall not chair the Audit Committee. Prof. Dr Hermann Wagner has been the Chairman of the Supervisory Board since 23 November 2021. On account of his many years as an auditor and tax advisor, as well as his extensive experience as Chairman of Aareal Bank's Audit Committee, he continues to exercise the position as Chairman of the Audit Committee, thereby complying with the statutory provision of section 25d (9) sentence 2 of the KWG according to which the Chairman of the Audit Committee must be an accounting/financial reporting and auditing expert.

Wiesbaden, December 2022

The Management Board

Jochen Klösges **Nina Babic**

Marc Hess **Christof Winkelmann**

For the Supervisory Board

Prof. Dr Hermann Wagner
(Chairman)

Corporate Governance at Aareal Bank Group

Aareal Bank Group is managed by the parent company Aareal Bank AG. Aareal Bank is a listed bank, which by virtue of being classified as ‘significant’, is supervised directly by the European Central Bank. Although the Management Board and the Supervisory Board of Aareal Bank AG are required to observe a large number of specific corporate governance rules, their common understanding does not end at compliance with these rules. They also discuss, on a regular basis, the application of voluntary standards that are recommended by the German Corporate Governance Code, the banking supervisory authorities, Aareal Bank shareholders or due to international best practice, or those that arise in the Supervisory Board’s and the Management Board’s day-to-day work.

It is the Management Board’s and the Supervisory Board’s top priority to act in the interests of the Company and hence to meet their responsibility vis-à-vis employees[1)], clients, shareholders and the public alike.

Disclosures regarding Corporate Governance standards

Senior management aligns corporate governance with legal and regulatory rules, as well as a comprehensive set of internal rules and regulations, which provide concrete guidance on the conduct and processing of the Bank’s business, in line with our ethical responsibility. These rules and regulations comprise the Memorandum and Articles of Association, the Rules of Procedure for the Supervisory Board and the Management Board, the strategies, the Risk Appetite Framework, the Internal Governance Policy, the Code of Conduct, and the Conflicts of Interest Policy; all members of staff have access to the documents, via common internal communication channels such as the Bank’s intranet. Memorandum and Articles of Association, Code of Conduct, Conflicts of Interest Policy, and Rules of Procedure for the Supervisory Board are also accessible via Aareal Bank’s website.

Aligning with the German Corporate Governance Code’s guiding principle

The Management Board and the Supervisory Board follow their own value structure and that of Aareal Bank, as well as the “reputable businessperson” concept and the German Corporate Governance Code’s principles of good corporate governance. The annual Declaration of Compliance pursuant to section 161 of the AktG lays out to what extent the Code’s recommendations were complied with, or shall be complied with.

According to Code recommendation F. 4, companies shall specify, in the Corporate Governance Statement, which Code recommendations were not applicable due to overriding legal stipulations.

- This applies to Code recommendation D. 4, according to which the Nomination Committee shall be composed exclusively of shareholder representatives. The Nomination Committee of a credit institution is regulated separately in the German Banking Act (*Kreditwesengesetz* – “KWG”). Pursuant to section 25d (11) of the KWG, the Supervisory Board’s Nomination Committee is required to assume additional tasks which are not supposed to be prepared by shareholder representatives on the Supervisory Board alone. Hence, the Executive and Nomination Committee of Aareal Bank AG also includes employee representatives. However, the Committee will ensure that the nomination of candidates for election by the Annual General Meeting will be determined exclusively by shareholder representatives on the Committee.

Sustainability approach

Contributing to sustainable economic development is a priority for Aareal Bank Group. As a partner to the property industry, Aareal Bank Group thus aligns its business conduct with the requirements of the sector and the stakeholders. The Group is aware of the responsibility associated with its sustainability mission statement and the necessity to focus on the needs of society, and aims to preserve the foundations on which future generations can base and shape their lives.

[1)] Any reference made to job titles or offices in this Corporate Governance Statement encompasses all genders, except where otherwise stipulated.

The sustainability mission statement underpins Aareal Bank Group's corporate sustainability strategy and is achieved through an integrated sustainability management. The statement provides a summary of the corporate responsibility principles that are aligned with our objective of doing business sustainably:

- We think in an integrated and future-oriented manner, taking ethical, social and ecological topics into account.
- We analyse trends holistically, evaluate the resulting opportunities and risks, and align our forward-looking sustainability performance accordingly.
- We focus on all relevant stakeholder groups, seek to engage in active dialogue with them in a variety of ways and show how we make use of the insights we have gained.
- We make sure that business decisions take account of environmental, social and governance factors, and communicate our progress – and the challenges we face – transparently and credibly.
- We set priorities and implement our decisions, thereby reinforcing corporate sustainability values such as reliability, innovative ability, integrity, transparency and risk management, our appeal as an employer, and building and maintaining high-trust client relationships.

In doing so, we are guided by national and international frameworks, are committed to initiatives, or have joined organisations that represent generally accepted ethical standards and whose values we share. Relevant organisations include:

- United Nations Global Compact,
- International Labour Organization,
- German Corporate Governance Code,
- Diversity Charter,
- Work-Care Balance Charter.

Established in 2012, the Sustainability Committee supports the Management Board in developing the Group's sustainability performance and reporting. At the same time, it serves as discussion and advisory body to the Group Sustainability Officer, who communicates relevant topics to the Management Board. The Committee includes representatives from all key divisions. Aareal Bank Group continuously works to improve its ESG governance, considering not only regulatory and supervisory requirements, but also the needs of different stakeholder groups and the unique features of its business model.

For further details please refer to the latest Sustainability Report under
www.aareal-bank.com/en/investors-portal/finance-information/sustainability-reports/archive/.

Code of Conduct

We believe that the principles of integrity and responsible conduct must be observed by members of the Management Board and the Supervisory Board, and by all our employees across the Company, regardless of their functions and duties. Our Code of Conduct therefore contains binding rules governing the legal and ethical conduct of all employees vis-à-vis clients, business partners, and colleagues. Aareal Bank Group's efforts in this context are also motivated by the desire to affirm and strengthen the confidence which stakeholders – our clients, business partners, investors, and staff – place in us (www.aareal-bank.com/en/footermenu/code-of-conduct).

Conflict of Interest Policy

Aareal Bank's processes are – and will be – set up in a manner to prevent conflicts of interest from occurring in the first place. Where they occur nonetheless, dealing with them in the right way is decisive. A Group-wide policy is in place that sets out the correct way of handling conflicts of interest, to prevent any adverse consequences for clients, the Bank and its employees, as well as any doubts regarding the integrity of Aareal Bank Group. These rules provide orientation as to how conflicts of interest are identified, documented, and appropriately resolved. All employees are required to establish transparency regarding any conflicts of interest arising within their area of work, and to ensure that such conflicts are dealt with in accordance with the Policy.

Principles of diversity

The Management Board and the Supervisory Board are openly committed to diversity across the entire Aareal Bank Group.

Aareal Bank defines diversity as:

- The appreciation that every individual is unique, and the respect for this uniqueness
- Equal opportunities at all levels
- The prevention of discrimination of any kind
- The belief that diversity enriches corporate culture and also represents a success factor in reaching strategic goals.

The Bank thus aims to promote Aareal Bank Group's image as a modern employer, to strengthen employee commitment, increase employee motivation, to ensure skills and competencies are fostered individually in a way that promotes employee performance, to react to demographic change and an ageing workforce, and to take into account individual circumstances and stages of life.

In order to highlight the significance of diversity, and to document the fact that the concept of diversity is very important to Aareal Bank Group, the Bank signed the Charter of Diversity (an initiative launched by German industry in 2006) in 2013. Aareal Bank AG introduced a Diversity Policy in December 2021.

Aareal Bank employs people from 40 different countries. At Aareal Bank's foreign locations, we take care to ensure that positions are primarily filled by local staff if possible. Aareal Bank Group attaches great importance to the equal treatment of women and men, whether in the context of filling vacant positions, with regard to continuous professional development, or in terms of remuneration. Specifically, any vacancies below senior executive level are generally published throughout the Company, in the form of job advertisements that all members of staff – male or female – may apply for. When setting the remuneration of employees, we do not differentiate by gender but rely exclusively on aspects such as qualification, professional experience or training.

In accordance with the German Act on Equal Participation of Men and Women in Executive Positions in the Private and Public Sector ***(Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst)***, the Management Board sets specific targets – including implementation deadlines – for the share of women holding executive positions on the first two management levels below the Management Board of Aareal Bank AG. On the first management level below the Management Board, by 30 June 2022 at least 13.5 % of executive positions were to be held by women. The new target applicable as of 1 July 2022 stipulates that the proportion of women on the first management level below the Management Board should be 20.0 % minimum by 30 June 2027. On 31 December 2022, the share of female managers on this level was 16.1 % (2021: 18.2 %). On the second management level below the Management Board, by 30 June 2022 at least 21.1 % of executive positions were to be held by women. The new target applicable as of 1 July 2022 stipulates that the proportion of women on the second management level below the Management Board should be 23 % minimum by 30 June 2027. On 31 December 2022, the share of female managers on this level was 22.2 % (2021: 21.2 %).

Across Aareal Bank Group, the share of women in executive positions stood at 22.5 % (2021: 24.3 %); at Aareal Bank AG, it was 21.6 % (2021: 21.4 %), and at Aareon, it was 22.8 % (2021: 25.5 %). Women accounted for 36.4 % of Aareal Bank Group's entire workforce as at 31 December 2022 (2021: 36.6 %), at Aareal Bank AG, the share was 42.1 % (2021: 41.4 %) and 33.7 % at Aareon (2021: 33.9 %).

In Germany, Aareal Bank and Aareon apply the German General Equal Treatment Act (*Allgemeines Gleichbehandlungsgesetz* – "AGG"), with specially-appointed Anti-Discrimination Officers overseeing compliance. In addition, all employees attend AGG training. In the US, the employee manual contains rules designed to avoid harassment at the workplace ("Anti-Harassment Rules").

Inclusion

Severely disabled persons made up 4.4 % of Aareal Bank AG's staff base in 2022 (2021: 4.4 %). This employee group is represented in the Group's German entities by a disability representative.

Working practices of the Management Board and the Supervisory Board

The Management Board is responsible for managing the Company and for its strategic orientation, material transactions and proper organisation. This also includes the implementation of effective monitoring systems. It focuses its business activities upon the Company's long-term and sustainable development. Its decisions incorporate the long-term consequences of its actions and are guided by the ethical principles of Aareal Bank Group (see relevant corporate governance principles).

Supervisory Board

The Supervisory Board exercises its control using different instruments. On the one hand, it sets out the reporting requirements of the Management Board in its internal Rules of Procedure, to ensure comprehensive and prompt reporting. These reports include the financial reports prior to publication, the reports of Internal Audit, Risk Controlling and Compliance, as well as the external auditor's reports. Said Internal Rules of Procedure also determine the transactions of the Management Board for which Supervisory Board approval is required.

Furthermore, the Supervisory Board contributes to Aareal Bank Group's sustainable success – in the interest of investors, clients, business partners, staff, and the general public – by selecting suitable Management Board members (as set out in the Guidelines for the selection of members of the Management Board and the Supervisory Board), a Management Board remuneration system which is aligned with the Company's long-term and sustainable interests, and by the effective supervision of said remuneration system.

The Supervisory Board has established five committees in order to perform its supervisory duties in an efficient manner: the Executive and Nomination Committee, the Remuneration Control Committee, the Risk Committee, the Audit Committee, and the Technology and Innovation Committee. An overview of the respective committee members can be found in the Notes to the 2022 Annual Report: www.aareal-bank.com/en/investors-portal/finance-information/financial-reports/archiv/2022/.

Executive and Nomination Committee

The Executive and Nomination Committee prepares resolutions to be taken by the Supervisory Board concerning fundamental issues, personnel matters and capital measures. The Committee's areas of responsibility also include assessing corporate governance and preparing the Supervisory Board's personnel decisions – in particular concerning the appointment and removal of Management Board members, and the drafting of individual contracts with Management Board members. The Executive and Nomination Committee compiles profiles defining the requirements for members of the Management Board and the Supervisory Board, considering personal and professional requirements along with its targets for the composition of both bodies, including the diversity concept. In addition, the Committee conducts an evaluation of the Management Board and Supervisory Board at least annually, and determines any further training requirements. Furthermore, the Executive and Nomination Committee resolves decision proposals regarding loans to senior managers and approves the assumption of any sideline activities by Management Board members. It is also responsible for the assessment and handling of conflicts of interest arising within the sphere of influence of the Management Board or the Supervisory Board, in line with the Management Board's and Supervisory Board's Conflicts of Interest Policy.

The Executive and Nomination Committee, excluding the employee representatives, discusses the nomination of shareholder representatives for election by the Annual General Meeting.

Remuneration Control Committee

The Remuneration Control Committee monitors whether the structure of the remuneration systems for Management Board members and employees is appropriate, taking into account the impact of remuneration systems on Aareal Bank's overall risk profile. The

Remuneration Control Committee prepares corresponding proposals concerning the material performance criteria and targets for determining the Management Board's variable remuneration. The Remuneration Control Committee takes delivery of the reports prepared by the units specified in the InstVergV (in particular, those submitted by Aareal Bank's Remuneration Officer).

Risk Committee

The Risk Committee monitors Aareal Bank's material risks, comprising financial and non-financial types of risk alike, including IT-related risks. The Committee is also responsible for reviewing the contents of the risk strategies in accordance with the MaRisk, for checking conformity with the business strategy, and preparing the corresponding resolutions of the Supervisory Board. It furthermore advises the Management Board on how to design an appropriate and effective risk management system, making sure that the Bank's risk-bearing capacity is adequate. To that end, the Committee monitors the Management Board, especially as regards determining risk appetite and the corresponding limits.

Audit Committee

The Audit Committee is responsible for accounting matters, and for auditing the Group and Aareal Bank AG, including risk management. The Committee is responsible for the preparation and conduct of the audit of the financial statements and the consolidated financial statements; it prepares the decisions to be taken by the Supervisory Board on the basis of the Committee's analysis of the external auditors' reports. For this purpose, the Committee reports to the plenary meeting of the Supervisory Board on the results of its analysis and the assessments derived. Preparing the audit of the financial statements also comprises the preparations for instructing the external auditors (by virtue of the corresponding resolution passed by the Annual General Meeting), verifying the independence of the external auditors, including the approval of permissible non-audit services, negotiating the auditors' fees, determining focal points of the audit, and regularly selecting new external auditors. The Audit Committee also discusses quarterly and half-yearly financial reports with the Management Board, and obtains the external auditors' report on their review of the half-yearly report. Furthermore, the Audit Committee is responsible for examining the projections submitted by the Management Board. In addition, Compliance and Internal Audit address their reports to the Committee. Last but not least the Committee is responsible for monitoring the effectiveness of the internal control and monitoring system.

The Audit Committee comprises at least two financial experts; the Chairman must be an accounting/financial reporting and auditing expert, whilst another member must be an accounting/financial reporting or an auditing expert.

Technology and Innovation Committee

It is the Technology and Innovation Committee's responsibility to both support Aareal Bank's activities regarding its own technological and IT-related development and identify and discuss new technological trends on the market, advising Aareal Bank accordingly. The Committee also deals with issues concerning information technology used within Aareal Bank, and with issues related to IT products created and distributed by Aareal Bank Group. This comprises the Bank's as well as Aareon's products. As part of these duties, the Committee monitors the implementation of Aareal Bank Group's digitalisation strategy which calls not only for a technical transformation, but also for modern and agile working practices and project methods.

Working relationship between the Management Board and Supervisory Board

The Supervisory Board and the Management Board work together in a trusting and constructively critical manner, for the benefit of Aareal Bank as a whole. Discussions during meetings are held in an adequate and target-oriented working atmosphere. Members of the Management Board are especially not permitted to attend Supervisory Board meetings at which their remuneration, their suitability, their succession, any behaviour that breaches their duties, or conflicts of interest are discussed or decided upon.

Outside meetings, it is mainly the Chairman of the Supervisory Board and committee chairman that communicate with the competent Management Board members. The Chairman of the Supervisory Board regularly discusses questions regarding the strategy, business development, risk situation, risk management, compliance, as well as personnel- and remuneration-related matters with the Chairman of the Management Board. The Chairwoman of the Risk Committee goes into detail – especially with the Chief Risk

Officer – on topics such as the risk situation, risk management, and risk strategies. The Chairman of the Audit Committee also regularly exchanges views with the Chief Risk Officer, but with the Chief Financial Officer and the external auditors, too; finally, the Chairwoman of the Technology and Innovation Committee keeps in touch with the Chairman of the Management Board outside meetings. The chairman inform the other Supervisory Board members about the key points of these discussions at the next ordinary Supervisory Board or committee meeting.

Communications

Aareal Bank assigns great importance to comprehensive communication with its stakeholders and has accordingly set itself the objective of maintaining active, transparent and open communication with all stakeholders, taking into account their interests equally. Likewise, Aareal Bank is committed to providing sound professional expertise as a contribution to political decision-making processes. The Bank has therefore registered as a legal entity in the Lobby Register covering political lobbying vis-à-vis the German parliament (the Bundestag) and the German government.

All press releases, ad-hoc disclosures, corporate presentations, along with annual reports, sustainability reports and interim financial information published by Aareal Bank are available on the Bank's website to any interested person, and may be downloaded from there. In addition, the financial calendar is updated regularly, and provides information about upcoming events.

Aareal Bank publishes details on its financial position and performance four times a year. On these occasions, the Management Board gives a personal account of results, within the scope of press and analysts' conferences, and issues press releases.

All information can be found on Aareal Bank's website: www.aareal-bank.com/en/investors-portal/.

Relationship with shareholders

To facilitate direct communication, Aareal Bank has set up a separate Investor Relations division within its organisation, which serves as a first point of contact for shareholders, other investors and analysts. The contact persons in Investor Relations can be found on the Aareal Bank website www.aareal-bank.com/en/investors-portal/equity-investors/contact/.

Aareal Bank addresses shareholders and other stakeholders in a targeted manner via roadshow activities, actively seeking their opinions. The Chairman of the Supervisory Board is also available for talks with shareholders and other stakeholders, using his own roadshow activities to gather external opinions on the Bank's governance.

The Bank also holds an ordinary Annual General Meeting once a year. Shareholders are thus given the opportunity to actively participate in the development of Aareal Bank. The Act on Measures Affecting the Law on Corporations, Cooperatives, Associations, Foundations and Residential Property to Combat the Effects of the Covid-19 Pandemic (*Gesetz über Maßnahmen im Gesellschafts-, Genossenschafts-, Vereins-, Stiftungs- und Wohnungseigentumsrecht zur Bekämpfung der Auswirkungen der Covid-19-Pandemie* – "Covid-19 Act") dated 27 March 2020 provides for the opportunity of general meetings to be held in virtual form; the Act also permits to exclude the physical presence of shareholders or their representatives, and to restrict certain shareholder rights. These provisions were suspended as per 31 August 2022 and replaced by the Act on the Introduction of Virtual Annual General Meetings of Public Limited Companies (*Gesetz zur Einführung virtueller Hauptversammlungen von Aktiengesellschaften*), dated 26 July 2022, adopted following the generally positive experience gained in the last two years and in the context of ongoing digitalisation, also in terms of company law. The aim is to define permanent, up-to-date provisions for virtual annual general meetings within company law, especially attempting to structure the exercise of shareholder rights in a way that is comparable to in-person meetings.

At the Annual General Meeting, the shareholders decide, in particular, on the formal approval of the Supervisory Board and Management Board members for the financial year under review, on the appropriation of any net retained profit, amendments to the Memorandum and Articles of Association, and authorisations on capital adjustments. The Annual General Meeting elects the external auditors for the Company, decides who joins the Supervisory Board as shareholder representative, and adopts other resolutions submitted to the Annual General Meeting.

Aareal Bank shareholders may submit statements or recommendations to the Company, using various means of communication, at Annual General Meetings. They may also request to speak at the Annual General Meeting. The shareholders may also submit counter or supplemental motions to the agenda items at the Annual General Meeting, so that they participate in structuring and influencing the meeting.

Guidelines regarding the Selection of Members of the Management Board and the Supervisory Board

The Supervisory Board of Aareal Bank AG is satisfied that the Management Board and the Supervisory Board are adequately staffed, if all members are in a position to perform their duties (professional qualification), commit the time necessary to perform these and possess the integrity to be guided by the ethical principles of Aareal Bank when performing their duties (with respect to personal reliability, including conflicts of interest and independence aspects). The composition of the Supervisory Board and the Management Board, respectively, shall facilitate, in its entirety, cooperation and the widest possible diversity of opinions and knowledge (the concept of diversity).

The Supervisory Board has defined concrete requirements and processes to incorporate these criteria when evaluating Management Board and Supervisory Board members, as well as when selecting candidates for appointment to the Management Board, or shareholder representatives to the Supervisory Board. When establishing these processes, it took into account the requirements of the German Public Limited Companies Act (*Aktiengesetz* – "AktG") and the German Banking Act (*Kreditwesengesetz* – "KWG"), as well as the recommendations of the German Corporate Governance Code. In addition, the regulatory guidelines of the European Central Bank and the European Banking Authority on adequacy and internal governance are also incorporated, as are corporate governance guidelines of consultants on share voting rights and major shareholders that are relevant to Aareal Bank. Besides the Supervisory Board, the European Central Bank also reviews the suitability of the respective candidates, using the so-called 'fit & proper' approach.

Personal reliability

The principles of personal reliability apply equally for all members of the Management Board and the Supervisory Board. The members of the Management Board and the Supervisory Board shall demonstrate honesty, integrity and independence of mind. They should live by the ethical principles of Aareal Bank, as set out in the Code of Conduct, and commit sufficient time to perform their duties. The Supervisory Board calculates the time commitment of every member of the Management Board and the Supervisory Board, and reviews on an annual basis whether they are also dedicating sufficient time to exercising the mandate. In this context, the Supervisory Board takes care to ensure compliance with the requirements for the maximum number of additional offices, pursuant to sections 25c (2) and 25d (3) of the KWG.

Conflicts of interest and independence of Supervisory Board members

Special rules apply to the Supervisory Board, over and above the Group-wide Conflict of Interest Policy. Acting in the interests of the Company means making judgements unbiased by extraneous influences. The Supervisory Board therefore attaches particular importance to the handling and disclosure of actual, potential, temporary or permanent conflicts of interest that could, for example, call into question the independence of the Supervisory Board.

In the Management Board's and Supervisory Board's Conflicts of Interest Policy, which has been specifically designed for these two corporate bodies, the Supervisory Board has laid down procedures on how to handle conflicts of interest affecting members of the Management Board or the Supervisory Board. In accordance with this Policy, individual Management Board and Supervisory Board members must establish transparency in the event of any potential conflicts of interest.

The Supervisory Board has also determined when the independence of shareholder representatives is no longer ensured. At least once a year it carries out a review of whether the independence of individual members is no longer ensured, or may be compromised. In the event of the following circumstances, the Supervisory Board generally assumes that independence is not ensured:

- if a material, and not just temporary, conflict of interest materialises within the meaning of the Management Board's and Supervisory Board's Conflicts of Interest Policy;
- if the member of the Supervisory Board has served on the Supervisory Board or Management Board of Aareal Bank AG for twelve consecutive years or longer;
- if less than five years have elapsed between their service on the management board of an institution included in the scope of prudential consolidation and their membership of Aareal Bank AG's Supervisory Board;
- if less than three years have elapsed between their serving as a senior manager at the top management level below the Management Board at Aareal Bank AG or another entity included in the scope of prudential consolidation and their membership of the Supervisory Board of Aareal Bank AG;
- if the member of the Supervisory Board is a controlling shareholder of Aareal Bank AG as defined in Article 22 (1) of Directive 2013/34/EU, or if they represent the interests of a controlling shareholder;
- if the member of the Supervisory Board has a material financial or business relationship with the relevant institution;
- if the Supervisory Board member is an employee of, or otherwise affiliated with, a controlling shareholder of Aareal Bank AG;
- if the member of the Supervisory Board has been the owner of a significant professional advisor or external auditor or have themselves been a significant advisor to Aareal Bank AG or any other entities included in the scope of prudential consolidation within a three-year period;
- if the member of the Supervisory Board is, or was in the previous year, a significant supplier or client of Aareal Bank AG or any other entity included in the scope of prudential consolidation, or had any other significant business relationship with, or is a senior executive (*leitende(r) Angestellte(r)*) of, a significant supplier, client or commercial enterprise that has a significant business relationship, or is otherwise directly or indirectly related to such significant supplier, client or commercial enterprise;
- if the member of the Supervisory Board member receives significant remuneration or other benefits from Aareal Bank AG or another entity included in the scope of prudential consolidation over and above the remuneration for their activities as a member of the Supervisory Board or any remuneration for activities performed in connection with any significant financial or business relationship with Aareal Bank AG;
- if the Supervisory Board member is a close relative of a member of the Management Board of Aareal Bank AG or of a member of the management board or a managing director of another entity included in the scope of prudential consolidation.

Furthermore, all Supervisory Board members are subject to the statutory limitations laid out in section 100 (2) nos. 2 to 4 of the AktG. Unlike the criteria listed above, the statutory limitations are mandatory, which means that they prevent the nomination of a potential candidate, or require the resignation of the affected board member.

Effective 31 December 2022, the Supervisory Board believes, taking the above definition into account, that six of eight shareholder representatives – specifically, Prof. Dr Wagner, Mr Giesecke, Mr Hall, Ms Knoflach, Ms Seignette and Mr Sevilla Álvarez – are independent, whereas Mr Lotter and Ms Lulay are not considered independent in line with the above definition.

Professional qualification

Every member of an executive body must possess the knowledge, ability and experience to properly perform their duties. This means that they must at least be able to understand and assess the Company's material business activities and the associated material risks, the control and monitoring system established in this regard, as well as the corresponding accounting and financial reporting systems. This also requires being familiar with the underlying material legal requirements. Each member of the Supervisory Board must be in a position to perform the duties incumbent on the Supervisory Board in its entirety.

When chairing a committee, Supervisory Board members should possess extensive expertise in the topics covered by that committee. The Chairman of the Audit Committee, for example, must be an expert on financial reporting issues and internal control and risk management systems, while the Chairman of the Risk Committee must be an expert in assessing the efficacy of risk management systems in credit institutions.

Overall, with regard to its collective composition, the Supervisory Board further decided that the following additional expertise be adequately represented:

- Experience in sectors and financial markets which are material to Aareal Bank Group,
- Digitalisation and transformation,
- Strategic planning,
- Design and assessment of risk management systems, internal control systems and corporate governance frameworks,
- Accounting/financial reporting and audit matters,
- ESG, and
- M&A.

The skills matrix below provides an overview of the implementation status of the collective profile of required skills and expertise:

Member of the Supervisory Board	Material sector and financial markets expertise	Digitalisation and trans-formation	Strategic planning	Design and assess-ment of RMS, ICS and CG frameworks	Accounting/ financial reporting and auditing	ESG	M&A
Prof. Dr Hermann Wagner	X			X	X		
Sylwia Bach*	X	X					
Henning Giesecke	X		X	X	X		
Denis Hall	X	X		X		X	X
Petra Heinemann-Specht*	X			X			
Barbara Antonia Knoflach	X	X	X			X	X
Jan Lehmann*	X	X			X		
Hans-Hermann Lotter	X		X	X	X		X
Marika Lulay	X	X	X			X	X
Klaus Novatius*	X			X			
Sylvia Seignette	X		X	X	X		X
José Sevilla Álvarez	X		X	X	X		X

* Employee representative

The following Audit Committee members are experts in the areas of accounting/financial reporting and auditing:
Prof. Dr Wagner, Mr Giesecke and Mr Sevilla Álvarez. Mr Lotter is an auditing expert and Ms Seignette is an accounting/financial reporting expert.

Please refer to Aareal Bank's website for the curricula vitae of the members of the Management Board (www.aareal-bank.com/en/about-us/company-profile/the-management-board) and the members of the Supervisory Board (www.aareal-bank.com/en/about-us/company-profile/supervisory-board).

Concept of diversity

In principle, the Management Board and the Supervisory Board pursue the objective in their bodies of ensuring maximum variety with regard to gender, age, internationality and professional diversity. Where there are several equally suitable candidates, further selection takes these aspects into account, to avoid "herd mentality" and to draw together the broadest possible spectrum of different perceptions to make the best possible decision for Aareal Bank. The Management Board ensures that these aspects of diversity are also taken into consideration at the management levels it controls, to facilitate succession oriented around this concept of diversity. The Supervisory Board has set objectives for the aforementioned diversity aspects, both for itself and the Management Board, the implementation of which it presents annually. It understands these objectives as being minimum objectives; there is no reason why they cannot be exceeded.

Gender diversity

The Supervisory Board sets specific targets – including concrete implementation deadlines – for the share of female members on the Supervisory Board and the Management Board. Likewise, the Management Board defines such targets for the first two management levels below the Management Board. On the Supervisory Board, by 30 June 2022 at least 25 % of positions were to be held by women. New targets in place since 1 July 2022 stipulate that by 30 June 2027 at least 33 % of Supervisory Board positions are to be held by women. The status quo is 41.7 % (2021: 44.4 %). By 30 June 2022, at least 20 % of Management Board positions were to be held by women. The new target, applicable as of 1 July 2022, stipulates that the proportion of women on the Management Board should be 25 % minimum by 30 June 2027. The status quo is 25 % (2021: 25 %). Therefore, the minimum objectives set by the Supervisory Board have been achieved.

Age diversity

The Supervisory Board has set out targets for the age structure of the Management Board and the Supervisory Board, in order to safeguard the continuous development of both executive bodies. At the time of (re)election to the Supervisory Board, candidates should be less than 70 years old. Furthermore, half of the Supervisory Board members should be younger than 60 years. Members of the Management Board should not exceed the upper age limit of 65 years while serving on the Management Board. These objectives are currently met.

International profile

In addition, given Aareal Bank's international business activities, the Supervisory Board has set itself and the Management Board the goal of having the broadest possible international experience, which can be proven by foreign nationality or considerable professional experience gained in another country. For the Management Board, the figure is currently at 50 % (2021: 25 %), for the Supervisory Board it is at 58.3 % (2021: 22.2 %).

Diversity of professional skills

The Supervisory Board pursues the objective of maximum professional diversity when selecting the members of the Management Board and the Supervisory Board. However, the demanding professional requirements for members of the management board and the supervisory board of so-called 'significant credit institutions' limit the opportunities for achieving this objective: for instance, regulatory rules require in principle that members of the Management Board have extensive experience in the lending business and in risk management. In accordance with section 100 (5) of the AktG, the Management Board members in their entirety shall be familiar with the sector in which the Company operates. The Supervisory Board's aim of ensuring that not all members have gained most of their professional experience at a credit institution is currently met.

Election periods and dates ('staggered board')

To avoid the simultaneous outflow of considerable know-how, the Supervisory Board has set different election dates at which, barring unforeseeable developments, decisions are made about different groups of Supervisory Board members. Ms Seignette's term of office runs until the ordinary Annual General Meeting in 2023; the terms of office of Mr Hall, Mr Lotter and Prof. Dr Wagner run until the ordinary Annual General Meeting in 2024, and those of Mr Giesecke, Ms Knoflach, Ms Lulay and Mr Sevilla Álvarez run until the ordinary Annual General Meeting in 2026. To establish appropriate groups of Supervisory Board members, the Supervisory Board intends to make proposals for the succession or re-election of shareholder representatives at the upcoming Annual General Meetings in such a way that the Supervisory Board is once again divided into three groups of Supervisory Board members with each group having identical terms of office. As soon as these groups have been established, shareholder representatives shall generally serve on the Supervisory Board for a period of four years, i. e. a new decision concerning some of the shareholder representatives must be taken at the latest every two years.

The terms of office for employee representatives continue to run for five years: the current representatives are therefore in office until the ordinary Annual General Meeting in 2025.

Regular evaluation of suitability and performance

The Executive and Nomination Committee evaluates the Management Board and Supervisory Board at least once a year. The evaluation consists of two components: the suitability test and the efficiency test. The latter is supported by external partners.

Within the scope of the evaluation, the Committee checks whether the Management Board and Supervisory Board members possess the necessary personal and professional requirements on the one hand, and the requirements for the collective composition, including collective profile of required skills and expertise, and diversity concept, on the other.

Furthermore, the Executive and Nomination Committee takes the structure, size, composition, and performance of both bodies into consideration, including the results of a benchmark comparison conducted precisely for this reason. The assessment of structure, size, and composition is not restricted to the bodies as such, but also includes the Supervisory Board committees; it comprises an efficiency and effectiveness review of the cooperation within the Supervisory Board, between the committees and the full Supervisory Board, as well as between the committees, the Supervisory Board and the Management Board.

In addition to the regular annual evaluation, event-driven assessments may be conducted should, for example, suspicions arise regarding insufficient individual or collective suitability, or should the adequate composition of the Management Board and/or the Supervisory Board need to be reviewed due to a change in strategy.

Succession planning

The Executive and Nomination Committee is responsible for the succession planning of the Management Board and the shareholder representatives on the Supervisory Board. The Committee performs an annual review of the established profile of required skills and expertise, and examines whether it is compatible with Aareal Bank's business and risk strategies, proposing any necessary adjustments. Furthermore, the Committee reviews, as part of the annual evaluation, whether the current members of the Management Board and the Supervisory Board fulfil the presently applicable criteria, taking the latest amendments into account. If this is not the case, the Committee suggests measures to the Supervisory Board to ensure that all criteria are fulfilled going forward. Such measures may include continuing education courses for individual or multiple Management Board or Supervisory Board members, as well as changes in the composition of the Management Board or the Supervisory Board.

Furthermore, the Executive and Nomination Committee discusses upcoming personnel decisions on an ongoing basis and well in advance, such as projected retirements, potential re-appointments, etc. Therefore, if the re-appointment of a Management Board or Supervisory Board member is not an option, the Executive and Nomination Committee generally concerns itself with a suitable successor more than a year in advance.

In the event of upcoming changes to the composition of the Management Board or Supervisory Board, the Executive and Nomination Committee aims to find a successor who fulfils the personal criteria, while at the same time promoting the fulfilment of the goals established in terms of board composition. Succession planning for the Management Board is made in close cooperation with the Chairman of the Management Board. The Executive and Nomination Committee considers both internal and external candidates.

Aareal Bank has taken various measures to be able to respond to short-term personnel fluctuations on the Management Board (for example, due to resignation for personal reasons), and to identify suitable internal successors. For instance, the Bank can provide tailor-made development measures to senior managers in order to ensure they have the fundamental skills and abilities to become a member of the Management Board. This includes, in particular, business development, risk management and accounting/financial reporting know-how as well as leadership skills.

As a general rule, every skill required for the activities of Aareal Bank's Supervisory Board and its committees is represented by at least two Supervisory Board members; in terms of the Audit Committee this applies through compliance with the recommendations of the German Corporate Governance Code. In addition, in order to make sure there is a quorum even in the event of short-term changes in the composition of the respective committee, every committee comprises more than three members.

Composition of the Management Board and Supervisory Board

The members of the Supervisory Board and its committees, the respective chairman and members of the Management Board and their relevant areas of responsibility, are presented below (cf. "Executive Bodies of Aareal Bank AG"). The Management Board is currently comprised of four members. The Supervisory Board appoints one of the members as Chairman of the Management Board. In accordance with Aareal Bank AG's Memorandum and Articles of Association, the Supervisory Board consists of twelve members. Once elected by the Annual General Meeting, the members of the Supervisory Board elect a Chairman and at least one Deputy Chairman from amongst them, for the duration of their term of office. Eight members are elected by shareholders at the Annual General Meeting; four members are elected by employees, through the Group Works Council.

The committees consist of six members. The Chairman of the Supervisory Board is a member of every statutory committee. According to recommendation C. 10 of the German Corporate Governance Code as well as Aareal Bank's Guidelines for the selection of members of the Management Board and the Supervisory Board, the Audit Committee, the Remuneration Control Committee, the Executive and Nomination Committee and the Risk Committee are chaired by independent experts. Additionally, care is also taken to avoid any interlinking of the committee members' positions, to ensure mutual exchange of information.

Purchase or sale of the Company's shares

In 2022, members of the Company's executive bodies did not carry out any transactions involving the Company's shares which would have required publication in accordance with the requirements of Article 19 of the EU Market Abuse Regulation (596/2014/EU), in conjunction with section 26 of the German Securities Trading Act (*Wertpapierhandelsgesetz* – "WpHG").

Please refer to Aareal Bank's website under www.aareal-bank.com/en/about-us/corporate-governance/managers-transactions/ for the notifications.

Accounting policies

Aareal Bank AG prepares the Group's accounts in line with the International Financial Reporting Standards (IFRSs) as applicable in the European Union. The single-entity financial statements of Aareal Bank AG are prepared in accordance with the provisions of the German Commercial Code (Handelsgesetzbuch – "HGB"). The Management Board prepares the financial statements and management reports of Aareal Bank AG and Aareal Bank Group. The external auditors submit their report on the audit of the financial statements and the consolidated financial statements to the Supervisory Board, which also monitors their independence. The fees paid to the external auditors are shown in Note (38) to the financial statements. Permissible non-audit services provided by the external auditors must be approved beforehand by the Audit Committee of the Supervisory Board.

KPMG AG Wirtschaftsprüfungsgesellschaft, the auditors of the 2022 financial statements – as elected by the Annual General Meeting 2022 and instructed accordingly by the Supervisory Board – have exercised their audit activities under the management of Messrs Gero Wiechens and Markus Winner.

Report of the Supervisory Board of Aareal Bank AG, Wiesbaden

Dear shareholders,

The past financial year was yet another remarkable year, in many ways. Irrespective of the different events that affect the Bank directly – such as the extensive changes to the Supervisory Board, the takeover offer that was successful in the second attempt, or the consequences of the war in Ukraine – Aareal Bank continued its growth strategy successfully across all segments.

During the financial year under review, the Supervisory Board continually advised, monitored, and supervised the management of the Company. The Management Board informed the Supervisory Board regularly, without delay and comprehensively about all the issues important to the Bank. The Management Board reported on the Group's situation, business development, key financial indicators and market developments. In addition, detailed reports and explanations were given to the Supervisory Board regarding the current liquidity status and liquidity management measures taken, the prevailing risk situation, and on risk control and risk management measures taken within the Group. The Supervisory Board was also informed about compliance within the Company on a regular basis, and it received the reports prepared by Internal Audit. The Supervisory Board also received comprehensive reports on the development of the business segments, and on operative and strategic planning. Furthermore, our Supervisory Board intensively discussed the public takeover offers made by a group of bidders. Ultimately, a clear majority of around 84 % of Aareal Bank's shareholders expressed their support for the offer.

The Supervisory Board was involved in all material decisions of Aareal Bank Group. All material events were discussed and examined in detail; where a Supervisory Board resolution was required, the decision proposals were submitted to the Supervisory Board in due time, and a decision was taken. In cases where resolutions needed to be passed in periods between scheduled Supervisory Board meetings, such resolutions were passed by way of circulation or via conference calls or video calls. In 2022, the Supervisory Board and its committees held all of their meetings in hybrid form, due to the ongoing occurrence of Covid-19 infections.

Furthermore, between the individual meetings, the Chairman of the Management Board kept the Chairman of the Supervisory Board informed, on a continuous and regular basis, regarding all material developments of the Company. The Chairman of the Management Board maintained close and regular contact with the Chairman of the Supervisory Board, in order to personally discuss key issues and important decisions. The Chairman of the Supervisory Board then proceeded to inform the other Supervisory Board members of these discussions at the following Supervisory Board meetings. In addition, regular discussions were held between members of the Management Board and committee chairpersons, especially between the CRO and the Chairwoman of the Risk Committee. The chairpersons reported on the discussions to their respective committees.

Activities of the Plenary Meeting of the Supervisory Board

Due to the above-mentioned factors the Supervisory Board held 18 plenary meetings over the course of the previous financial year. During these meetings, the members of the Supervisory Board received the submitted reports and documents, as well as oral explanations, which were discussed in detail. Economic and market developments, in view of and particularly bearing in mind the persistent Covid-19 pandemic and the Russia-Ukraine conflict, were focal points of the work and reporting at all scheduled meetings. This also included the measures taken by the Bank to counter these market developments. Added to this were the two takeover offers for Aareal Bank AG shares.

During the plenary meetings of the Supervisory Board, the Management Board regularly and comprehensively reported to the Supervisory Board; these reports also covered the development of the Structured Property Financing, the Banking and Digital Solutions and Aareon segments, focusing in particular on current developments. In addition, the Supervisory Board was informed about the business development of the entire Aareal Bank Group. At regular intervals, the Supervisory Board was informed of the Bank's liquidity status and the related steps taken by the Bank's Treasury division. The Management Board also regularly reported on the quality of the property financing portfolio against the background of market trends in the various property markets, with an ongoing particular focus on the effects of the Covid-19 pandemic. Due attention was also afforded in 2022 to the Russia-Ukraine conflict. Furthermore, within the scope of reporting, the regular reports prepared by the control functions – including Risk Controlling, Compliance, Internal Audit, Information Security & Data Protection, and the Remuneration Officer – were presented and discussed.

The focal points of the individual meetings are outlined below.

- At a meeting held in **January 2022**, the Supervisory Board addressed the judicial appointment of Supervisory Board members. A further meeting related to remuneration issues and personnel matters of the Management Board.

- In **February 2022**, the Supervisory Board addressed the preliminary figures for the past 2021 financial year.

- In the **March 2022** meetings, the Supervisory Board dealt in detail with the financial statements and consolidated financial statements presented for the 2021 financial year, and with the auditors' report, in line with regular practice. The relevant facts were presented in the Supervisory Board report for the previous year. Furthermore, the Supervisory Board discussed the 2021 non-financial report and the results of the associated audit to obtain limited assurance. At the same meeting in March, the Management Board also provided a detailed presentation of the Group's business strategy. The Annual General Meeting and personnel matters of the Supervisory Board were addressed in a further meeting.

- In the **June 2022** meetings, the Supervisory Board concerned itself with the ordinary Annual General Meeting and the associated nominations of new Supervisory Board members. One meeting was devoted to the regular quarterly report as well as an in-depth discussion of Aareal Bank Group's strategy and its further development. The Supervisory Board talked about the strategic initiatives and options presented with the Management Board in considerable depth and detail.

- In the **August 2022** meetings, the Aareal Bank AG Annual General Meeting was reported on, and the necessary resolutions were passed. A constituting meeting of the Supervisory Board in its new composition was held following the Annual General Meeting.

- During the **September 2022** meeting, strategy dialogues were held with the Management Board and an update presented on the implementation status and the measures from the employee survey conducted the previous year, in addition to the regular reports.

- An overview of the planning was carried out in the **December 2022** meeting, in addition to the regular reports. The Supervisory Board also acknowledged the reporting on the Bank's project portfolio. In addition to the review of the governance documents, the annual review of the individual and collective suitability of the Management Board and Supervisory Board members (annual evaluation) as well as of the efficiency of the Supervisory Board's work was carried out. The evaluation was discussed in detail. The Supervisory Board also concerned itself with the Management Board's preliminary target achievement 2022 and targets for 2023.

The chairpersons of Supervisory Board committees regularly gave account of the work in the committees to the plenary meeting, answering all related questions submitted by the members of the plenary meeting in detail.

As part of preparing Supervisory Board decisions, a routine examination is carried out as to whether there are any conflicts of interest. No conflicts of interest that would need to be considered in the context of decision-making processes were identified during the financial year under review.

Activities of Supervisory Board Committees

The Supervisory Board has established five committees in order to perform its supervisory duties in an efficient manner: the Executive and Nomination Committee, the Risk Committee, the Audit Committee, the Remuneration Control Committee, and the Technology and Innovation Committee.

Executive and Nomination Committee:

The Executive and Nomination Committee of the Supervisory Board convened for seven meetings in the financial year under review. The Committee prepared, for the most part, the plenary meetings of the Supervisory Board during these meetings and discussed Aareal Bank Group's strategic development with the Management Board at regular intervals. Regarding the agenda items within the responsibility of the Supervisory Board, the Committee convened without the Management Board. These meetings particularly included discussions regarding suitability requirements for Management Board and Supervisory Board members, the processes for reviewing these requirements, the targets for the composition of both executive bodies, and the results of the annual evaluation of Management Board and Supervisory Board. Deliberations concerning the search for a successor for Ms Kunisch-Wolff as Chief Risk Officer and for retiring members of the Supervisory Board also took place during the financial year under review. In addition, deliberations took place again from March onwards regarding the discussions with investors about the tender offer for the acquisition of Aareal Bank's shares, and the delivery of the requisite reasoned statement was prepared.

- In the **January and February 2022** meetings, the Executive and Nomination Committee addressed the change of the Management Board member holding the CRO role.

- The discussion about changes in the composition of the Management Board continued in the **March 2022** meeting. Another focal point of the meeting was the strategy dialogue and preparation for the 2022 ordinary Annual General Meeting that was still planned for May at this point. The corporate governance reports, including the Corporate Governance Statement and the report of the Supervisory Board were also addressed.

- In **June 2002**, the regular focus was on the strategy in preparation for the Supervisory Board's strategy meeting. The Executive and Nomination Committee also addressed personnel matters of the Management Board and the preparation of the 2022 Annual General Meeting, including the nomination of candidates for election to the Supervisory Board. The governance documents were also reviewed. The need for implementation linked to the changes to the German Corporate Governance Code 2022 was also presented.

- In the **September 2022** meeting, the Executive and Nomination Committee addressed the strategy dialogue and the extension of related-party loans to subsidiaries. The Committee also concerned itself with the supervisory authorities' statements as part of the SREP 2022 exercise. Succession issues in the Supervisory Board were also discussed. Furthermore, the skills profile and diversity targets for the Supervisory Board were presented. The review of the governance documents of the Supervisory Board were also discussed.

- In the **December 2022** meeting, the Executive and Nomination Committee addressed the training concept for the Supervisory Board and its committees. In addition, issues of succession planning were discussed as scheduled, and corporate governance reporting was addressed.

Risk Committee:

The Risk Committee held seven meetings during the financial year under review. It regularly discussed reports on the Bank's risk situation, which were submitted and explained by the Management Board. Having discussed the contents with the Management Board, these were duly noted by the members of the Committee. Besides the risks that arose as a consequence of the invasion of Ukraine by Russian troops, the Committee concerned itself with credit and country risks, market risks, liquidity risks, and operational risks, as well as reputational and IT risks. The Committee was also engaged with the analysis of Aareal Bank's risk-bearing capacity and its capital ratios. Also, detailed reports were provided regarding the Bank's liquidity status and management as well as its funding. Risks from existing investments, as well as all additional material risks were also presented.

The Risk Committee concerned itself with Aareal Bank's strategies and the derived sub-risk strategies, as well as with the risk management system. The Management Board also submitted detailed reports to the Risk Committee, covering all markets in which the Bank is active in the property finance business, as well as supplementary reports regarding the Bank's investments in securities portfolios. The Committee members discussed these reports and market views in detail. Within the scope of risk reporting, significant exposures were discussed in detail, and measures for the reduction of high-risk exposures presented and consulted within the Committee. The Risk Committee received reports on recovery planning and other risk management measures. The Management Board also informed the Risk Committee about all completed, ongoing and scheduled audits by the supervisory authorities at each Risk Committee meeting. In addition to regular reporting on the risk situation at each meeting, the following meetings had additional focal points on certain topics: The current impact of the Russian-Ukraine conflict on Aareal Bank's risk situation was discussed in all meetings.

- In **February 2022**, the Risk Committee addressed the events in Ukraine (invasion by Russian troops on 24 February 2022).
- The Risk Committee meeting held in **March 2022** dealt with the results of the risk management system review performed by the external auditors, the supervisory authorities' focus during the 2022 financial year and other regulatory publications and amendments.
- In **April 2022**, the Risk Committee concerned itself with the overview of the structure of the project for implementing the amended supervisory requirements for the recovery planning and with adjustments to risk strategies. Reports were also presented on the credit risks, on non-financial risks, as well as an update on supervisory issues.
- In **June 2022**, the Risk Committee dealt with the regular reporting as well as the yearly reports of the individual risk management functions. In addition, supervisory and regulatory issues were also addressed.
- At the meeting held in **September 2022**, the discussion about lending with increased risk was a significant topic of risk reporting. An analysis of the impact of higher interest rates and questions regarding information security risk were other focal points. Furthermore, the Risk Committee was informed about the updated recovery planning and the current audits. Another focal point was the event-driven review of the business and risk strategies.
- At the **October 2022** meeting, a report was presented on the credit risks with an emphasis on dealing with non-performing exposures and foreclosures.
- In its **December 2022** meeting, the Risk Committee discussed the development of the loan portfolio and the risk situation. The Risk Committee then concerned itself with the regular review of terms and conditions in the client business. The risk inventory and the work of the Bank's internal project regarding recovery planning were also presented.

The Committee also concerned itself in all meetings with the banking and regulatory environment, focusing on current topics such as individual risk types during individual meetings. Furthermore, the Risk Committee dealt with the audits performed by the supervisory authorities, the findings these audits yielded and the supervisory authorities' recommendations on risk-related topics in all meetings.

Audit Committee:

The Audit Committee held eight meetings during the year under review.

In accordance with the requirements of the GCGC, during its meetings in May, August and November 2022, the Audit Committee discussed with the Management Board the quarterly results to be published. Furthermore, the current status and planning of key management indicators in the financial year, and current reviews and projects at Aareal Bank were reported upon at the Audit Committee meetings. In its meetings, the Committee received reports submitted by Internal Audit and the Bank's Compliance Officer, requesting and receiving detailed explanations, and duly noting both reports. The Committee was also informed about the work carried out by Internal Audit and of the audit planning. The Head of Internal Audit attended all meetings, unless these were exclusively for the purpose of presenting the preliminary quarterly figures. The Committee dealt with the measures the Management Board had taken to address the findings identified by external auditors, Internal Audit and supervisory authorities, and had the Management Board report on the status and progress of their rectification. External auditor representatives, too, attended all meetings, with the exception of the discussion of those agenda items that relate to the assessment of the financial statements audit and the proposal for the appointment of the external auditors. A regular update on the status of already approved and anticipated non-audit services provided by the external auditors was presented at all meetings. The 70 % limit of approved non-audit services in relation to planned audit services was neither reached nor exceeded at any time

- At its **February 2022** meeting, the preliminary figures for the 2021 financial year were submitted to the Audit Committee, and the dividend policy was discussed, among other things. The results of the preliminary checks as part of the 2021 financial statements and the audit planning of Internal Audit were presented.

- In **March 2022**, the Committee received the external auditors' report on the audit of the financial and consolidated financial statements for the 2021 financial year, and discussed the results with the auditors in detail. The Committee members discussed the contents of the audit reports provided; they formed their own judgement of the audit results on the basis of these reports, and by way of meetings held with the external auditors. Without the external auditors being present, the Audit Committee discussed the proposal for the external auditor for the 2022 financial year. The Committee also concerned itself with Aareal Bank Group's Sustainability Report and the audit undertaken to obtain limited assurance for this report. The report on compliance issues was also discussed, and the internal audits and projects were presented.

- The updated planning figures were explained in the **June 2022** meeting. The Audit Committee also discussed the focal points of the audit for the 2022 financial year. Finally, the compliance reporting, including the review of the Code of Conduct, was continued.

- In **August 2022**, the Audit Committee meeting focused on the interim financial report as at 30 June 2022, including the results of its review by the auditor, and the approach for the audit of the financial statements and consolidated financial statements for 2022.

- In **September 2022** the focus was the audit report.

- At its meeting in **December 2022**, the Audit Committee discussed the medium-term Group planning in detail with the Management Board. Moreover, the Committee was informed about the status quo and the progress of the audit. In addition, the Audit Committee was informed about the planned structure of sustainability reporting for the 2022 financial year. Furthermore, the committee was regularly informed about the review of the internal control system, in accordance with legal requirements; it duly acknowledged the report, following discussion.

Remuneration Control Committee:

The Remuneration Control Committee held seven meetings during the financial year under review. The Remuneration Officer, who attended every meeting, supported the Supervisory Board and the Remuneration Control Committee throughout the entire financial year.

Pursuant to the requirement set out in section 25d (12) of the KWG, which is reflected in the Rules of Procedure of Aareal Bank's Supervisory Board, the Management Board does not attend Remuneration Control Committee meetings which deal with Management Board remuneration. During the 2022 financial year, the Remuneration Control Committee convened four times without any member of the Management Board being present and held three meetings at which some Management Board members were present for selected agenda items.

During its meetings, the Remuneration Control Committee discussed issues concerning the Bank's remuneration systems and all related matters, fulfilling its original assignment. For this purpose, and to the extent considered necessary, external legal and remuneration advisors were retained to provide support. The Committee supported the plenary meeting of the Supervisory Board in monitoring the inclusion of internal control units and of all other material divisions in designing the remuneration systems, and assessed the effects of the remuneration systems on the Bank's risk, capital and liquidity situation. Moreover, the Remuneration Control Committee supported the Supervisory Board with all issues related to the remuneration of the Management Board. As a rule, support was provided to the Supervisory Board by preparing the corresponding recommendations.

- In **January 2022**, the Remuneration Control Committee concerned itself initially with the Management Board's targets and target achievement for the previous year. The appointment of a new Remuneration Officer was also discussed and the report on the work carried out on the say-on-pay resolution for the Annual General Meeting presented.

- In **March 2022**, the Committee finalised its assessment of the appropriate structure of the remuneration systems for the Management Board and employees. The results of the penalty review for employees and the Management Board were also presented, as was the review of the overall amount of variable remuneration as to legal permissibility, pursuant, inter alia, to section 7 of the InstVergV. In addition, the final decision was reached on the Management Board targets for 2022, the Remuneration Report was presented, and personnel matters of the Management Board were discussed. The say-on-pay resolution was drafted for presentation at the Annual General Meeting.

- In the **May 2022** meetings, the Remuneration Control Committee addressed the communication with regulatory authorities. At the Remuneration Control Committee meeting in **June 2022**, the Committee deliberated on the adequacy of Management Board remuneration, the say-on-pay resolution and supervisory reviews. The consistency of the remuneration strategy for employees with the Company's business and risk strategies was also presented to the Committee. Due to changes on the Management Board, personnel matters of the Management Board, Management Board targets and target achievement were presented and discussed.

- In the **September 2022** meetings, the Remuneration Control Committee concerned itself with the investor feedback on the Management Board remuneration system that was adopted by the Annual General Meeting on 31 August 2022. The Committee also dealt with how the takeover might impact on the remuneration systems, the disclosed remuneration indicators and the Management Board targets and target achievement.

- The indicative Management Board target achievement was presented in the **December 2022** meeting. The Committee also concerned itself with setting the Management Board targets for 2023, the adjustment of the Management Board service contracts, the 2021 remuneration report and the risk taker analysis.

Technology and Innovation Committee:

The Technology and Innovation Committee convened for five meetings during the financial year under review, during which the Committee discussed the implementation and further development of the digitalisation strategy, market trends, technological developments and innovation trends in detail, especially with a view to clients of the Banking and Digital Solutions and Aareon segments. Potential business opportunities arising from the growing digitalisation of business processes – and how these can be put to use by Aareal Bank Group, and especially for its clients – were explained by the employees of the Bank and respective subsidiaries responsible for the development, among others.

Further key aspects of regular discussions were all issues related to the security and flexibility of the IT systems used by the Bank, as well as the ongoing realignment of banking systems and the successes achieved in this regard so far, as well as the adjustments to the new requirements in the areas of reporting, regulation and cybersecurity. The IT strategy, budget planning and the monitoring and progress of important IT projects were also discussed.

External experts are invited to the meetings for selected topics, to present current developments from an independent perspective, and to discuss their potential impact on Aareal Bank, or how they can be taken on board by the Bank.

- In **March 2022**, the Technology and Innovation Committee addressed the updates to operational IT security, the implementation of the Benchmark Reform and the results of supervisory audits.

- A discussion at the **June 2022** meeting focused on the current assessment of the status of IT security. Current product initiatives were also presented to the Committee.

- In the **July 2022** meeting, the Technology and Innovation Committee dealt with organisational issues within the IT division.

- In **September 2022**, the Committee initially addressed the update of the IT strategy. The current status of IT-related projects was also presented. The Committee also dealt with an update to operational IT security.

- In the **December 2022** meeting, the Committee concerned itself with an overview of the Bank's project portfolio, with a particular focus on IT and IT security.

Attendance of Supervisory Board members at plenary and committee meetings:

Where members of the Supervisory Board were unable to attend a meeting, they announced their absence in advance, giving reasons. A representative on the employee representative side was ill in 2022. Attendance of Supervisory Board members at meetings is shown in the table below.

Member of the Supervisory Board	Participation in plenary meetings	Quota	Participation in committee meetings	Quota	Number of meetings attended / number of meetings*
Prof. Dr Hermann Wagner	18 / 18	100 %	29 / 29	100 %	47 / 47
Richard Peters	12 / 15	80 %	9 / 10	90 %	21 / 25
Klaus Novatius**	15 / 18	83 %	10 / 14	71.4 %	25 / 32
Jana Brendel	11 / 15	73.3 %	7 / 7	100 %	18 / 22
Thomas Hawel**	0 / 18	0 %	0 / 5	0 %	0 / 23
Petra Heinemann-Specht**	18 / 18	100 %	22 / 22	100 %	40 / 40
Jan Lehmann**	18 / 18	100 %	5 / 5	100 %	23 / 23
Sylvia Seignette	18 / 18	100 %	20 / 20	100 %	38 / 38
Elisabeth Stheeman	15 / 15	100 %	12 / 12	100 %	27 / 27
Holger Giese	15 / 15	100 %	8 / 8	100 %	23 / 23
Friedrich Munsberg	15 / 15	100 %	14 / 14	100 %	29 / 29
Dr Ulrich Theileis	15 / 15	100 %	8 / 8	100 %	23 / 23
Henning Giesecke	3 / 3	100 %	8 / 8	100 %	11 / 11
Denis Hall	3 / 3	100 %	7 / 7	100 %	10 / 10
Barbara Knoflach	3 / 3	100 %	6 / 7	85.7 %	9 / 10
Hans-Hermann Lotter	3 / 3	100 %	7 / 7	100 %	10 / 10
Marika Lulay	3 / 3	100 %	4 / 4	100 %	7 / 7
José Sevilla Álvarez	3 / 3	100 %	7 / 7	100 %	10 / 10

* plenary and committee meetings; ** Employee representative

Financial Statements and Consolidated Financial Statements

The Supervisory Board instructed KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, who were elected as auditors by the 2022 Annual General Meeting, with the audit of the financial statements and the consolidated financial statements. The external auditors appointed submitted a statement regarding their independence to the Supervisory Board, who duly noted it. The Supervisory Board has no reason to doubt the accuracy of this statement of independence. Fulfilling their duties as commissioned by the Supervisory Board, KPMG AG Wirtschaftsprüfungsgesellschaft audited the financial statements prepared in accordance with the German Commercial Code ("HGB") and the consolidated financial statements prepared in accordance with IFRSs, as well as the Management Report and the Group Management Report. Based on the results of their audit, KPMG AG Wirtschaftsprüfungsgesellschaft issued an unqualified audit opinion for the financial statements and consolidated financial statements.

All members of the Supervisory Board received the audit reports, including all annexes thereto, in good time before the meeting during which the financial statements and the consolidated financial statements were discussed. Having examined the documents provided, the Supervisory Board members formed their own judgement of the audit results. The external auditor representatives attended the meeting of the Supervisory Board, during which the financial statements and consolidated financial statements were discussed, and gave a detailed account of the results of their audit. The representatives of KPMG AG Wirtschaftsprüfungsgesellschaft were then available to the Supervisory Board to answer further questions and to provide additional information. All questions were answered to the full satisfaction of the Supervisory Board.

The financial statements and management report of Aareal Bank AG, prepared in accordance with the HGB, the consolidated financial statements as well as the Group Management Report prepared in accordance with IFRSs, the proposal of the Management Board regarding the appropriation of profit, and the audit reports, were all examined in detail. No objections were raised to the audit results. The Supervisory Board approved the results of the audit on 27 March 2023. The Supervisory Board thus confirmed the financial statements of Aareal Bank AG (in accordance with the HGB), and approved the consolidated financial statements (in accordance with IFRSs). The Supervisory Board examined and discussed with the Management Board its proposal regarding the appropriation of profit. On the basis of this discussion, the Supervisory Board endorsed the proposal for the appropriation of profit submitted by the Management Board, which is oriented on the ECB's recommendations.

Non-financial Report

The Audit Committee and the Supervisory Board concerned themselves with sustainability issues and related reporting during their meetings on 11 and 14 March 2022 and on 12 December 2022.

Moreover, during its meeting on 11 March 2022, the Audit Committee of the Supervisory Board discussed the separate combined non-financial report for 2021 and the result of KPMG's audit of that report. Representatives of the external auditors attended this Audit Committee meeting and reported on material results of their commercial review in accordance with ISAE 3000 (revised), undertaken to obtain limited assurance for this report. They answered supplementary questions from Committee members. The Audit Committee conducted a plausibility check of the audit results submitted by KPMG and presented its assessment of the non-financial report (and its analysis of KPMG's audit results) to the Supervisory Board. The Audit Committee also issued a recommendation to the Supervisory Board to concur with the results of the audit conducted by KPMG. The Supervisory Board followed this recommendation; at its meeting on 14 March 2022, it summarised its examination by stating that it had no objections concerning the non-financial report and the results of the audit conducted by KPMG.

Communication with Shareholders

In his position as Chairman of the Supervisory Board, Prof. Dr Hermann Wagner held talks with shareholder representatives as regards corporate governance within Aareal Bank. He presented the topics within the responsibility of the Supervisory Board, such as the composition of the Management Board and the Supervisory Board, the remuneration systems for Management Board and Supervisory Board members, the role of the Supervisory Board in the strategy development and implementation process as well as its involvement in environmental, social and governance (ESG) matters, the election of the external auditor and the succession planning.

Atlantic BidCo GmbH offer

On 4 February 2022, Atlantic BidCo GmbH (the "Bidder") notified Aareal Bank that its voluntary public takeover offer for shares in Aareal Bank AG of 23 November 2021 was not successful: according to information provided by the Bidder, the minimum acceptance level of 60 % was not achieved by the end of the acceptance period on 2 February 2022, 24:00 CET. The offer therefore lapsed.

Aareal Bank AG was informed by Advent International and Centerbridge Partners on 5 April 2022 that the bidder company Atlantic BidCo GmbH had concluded talks with shareholders holding approximately 37 % of voting rights in the Company with a view towards making a potential new takeover offer. These shareholders have undertaken to accept the offer for their shares or to sell to the bidder company beyond the scope of the offer. The Supervisory Board once again debated on the talks with the aforementioned financial investors about the tender offer for the acquisition of Aareal Bank's shares. It was involved in the negotiations and conclusion of the Investment Agreement on an ongoing basis, and also prepared and submitted the necessary reasoned statement again together with the Management Board.

The Bidder subsequently submitted a further public takeover offer at € 33 per share, subject to reaching a minimum acceptance level.

On 25 May 2022, Atlantic BidCo GmbH announced that at the end of the acceptance period on 24 May 2022, 24:00 CEST, the minimum acceptance level of 60 % set out in the voluntary public takeover offer was exceeded.

Annual General Meeting

In view of the aforementioned description of how the Atlantic BidCo GmbH takeover offer proceeded, the ordinary Annual General Meeting that was originally planned for May 2022 was initially postponed to 10 August 2022. Due to a technical error in relation to the invitation, the Management Board and Supervisory Board agreed to postpone the Annual General Meeting once again to 31 August 2022, in order to give all shareholders the opportunity to register for the Annual General Meeting. Management's proposals for resolution were accepted by the Annual General Meeting with a large majority. In addition to the aforementioned election of six new members of the Supervisory Board, the shareholders accepted the revised Management Board remuneration system with a very large approval rate.

Personnel matters

The following changes to the composition of the Management Board and the Supervisory Board arose during the year under review.

Management Board:

Ms Babic was appointed to the Management Board as Chief Risk Officer, effective 1 July 2022. She succeeded Ms Kunisch-Wolff, who had asked the Supervisory Board to terminate her contract early, citing personal reasons and her desire to dedicate herself to new tasks. The Supervisory Board had approved this request. Ms Kunisch-Wolff's mandate on the Management Board ended on 30 June 2022. Her successor, Ms Babic, was simultaneously appointed to the Management Board as Chief Risk Officer with effect from 1 July 2022.

Ms Kunisch-Wolff had served as Aareal Bank Group's Chief Risk Officer since March 2016 and her responsibilities included the risk controlling, compliance, AML, information security and data protection functions.

Ms Babic was appointed Senior General Manager on 1 June 2021 and was responsible for Aareal Bank's Credit Management, which assesses lending decisions involving new and existing business, together with the respective Sales units, and monitors loan and counterparty credit risks.

Supervisory Board:

After the removal of three members at the extraordinary General Meeting on 9 December 2021, the appointment of Supervisory Board members by the court was applied for in order to restore the Supervisory Board's composition in line with the requirements set out in the Memorandum and Articles of Association.

With the decision of 13 January 2022, the Frankfurt/Main Higher Regional Court approved the application submitted by Aareal Bank to appoint Messrs Giese and Munsberg and Dr Theileis as members of Aareal Bank's Supervisory Board, until the 2022 ordinary Annual General Meeting.

At the ordinary Annual General Meeting on 31 August 2022, the majority of Aareal Bank AG shareholders elected Mr Giesecke, Mr Hall, Ms Knoflach, Mr Lotter, Ms Lulay and Mr Sevilla Álvarez as new members of the Supervisory Board. The new Supervisory

Board members replaced the members Mr Giese, Mr Munsberg, and Dr Theileis, who were appointed by the court in January 2022, and who have left the Supervisory Board at their own request, as did Ms Brendel and Ms Stheeman. In addition, Mr Peters resigned from his office for reasons of age, following nine years as a member of the Supervisory Board, effective at the end of the General Meeting.

Mr Lotter and Ms Lulay are subject to a conflict of interest within the meaning of recommendation E.1 of the German Corporate Governance Code: Mr Lotter is a managing director of Atlantic BidCo GmbH, which intends to acquire Aareal Bank within the scope of a public takeover offer (see above). Ms Lulay is a managing director of GFT Technologies SE, which has a business relationship with an Aareal Bank subsidiary. Ms Knoflach and Mr Giesecke are only subject to a potential conflict of interest. In the event of a resolution in Aareal Bank's Supervisory Board that concerns an actual conflict of interest, the Supervisory Board members in question will abstain from joining the discussion and voting on the resolution.

Mr Hawel resigned from his office in mid-March 2023. Ms Bach succeeds him as a substitute candidate effective 16 March 2023. The Supervisory Board thanks Mr Hawel for his many years of constructive cooperation and wishes him all the best for the future. The members of the Supervisory Board look forward to working with Ms Bach.

Training and Continuous Professional Development

In September 2022, the Supervisory Board and its committees addressed the determination of the respective training requirements for the following year for the first time, according to the Supervisory Board's training concept and in line with the new regulatory formal requirements. The training requirements determined were prepared by the Executive and Nomination Committee and presented to the Supervisory Board in December 2022 together with a proposal for resolution for a specific training concept for the following year.

Individual continuous professional development and information events were also held by the external auditor elected by the Annual General Meeting. As part of deep dives or additional information events, the Supervisory Board members will be informed in more detail about current or desired topics.

In conclusion, the Supervisory Board thanks the Management Board and all of the Group's employees for the dedication, tremendous commitment and flexibility they have shown during the past 2022 financial year. With their continued commitment, strong motivation and perseverance, all Group employees have not only contributed to the Company's ability to successfully handle the ever-changing challenges brought about by the Russia-Ukraine conflict and the endeavours to overcome it, but have also continued their work on numerous projects, which can set the course for the future, under dynamically changing circumstances. This once again emphatically demonstrated the great team spirit that defines Aareal Bank.

Frankfurt/Main, March 2023

For the Supervisory Board

Prof. Dr Hermann Wagner
(Chairman)

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Financial Calendar

11 May 2023	Publication of results as at 31 March 2023
10 August 2023	Publication of results as at 30 June 2023
9 November 2023	Publication of results as at 30 September 2023

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