2023
Annual Report

Unlocking **transformation,** together.

For our clients, our people, and our communities.

Empowering
Communities to Progress.

UniCredit

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Financial Highlights

Key performance indicators

	1/1-31/12/2023	1/1-31/12/2022
Net operating profit	€2,413m	€1,839m
Cost-income ratio (ratio of operating costs to operating income)	44.3%	49.9%
Profit before tax	€2,139m	€1,768m
Consolidated profit	€1,735m	€1,301m

Balance sheet figures/Key capital ratios

	31/12/2023	31/12/2022
Total assets	€283,292m	€318,006m
Shareholders' equity	€19,940m	€19,739m
Common Equity Tier 1 capital[1]	€15,864m	€16,060m
Core capital (Tier 1 capital)[1]	€17,564m	€17,760m
Risk-weighted assets (including equivalents for market risk and operational risk)	€69,767m	€82,077m
Common Equity Tier 1 capital ratio[1,2]	22.7%	19.6%
Core capital ratio (Tier 1 ratio)[1,2]	25.2%	21.6%
Leverage ratio[1,3]	5.7%	5.4%

1 31 December 2023: in accordance with approved financial statements.
2 Calculated on the basis of risk-weighted assets, including equivalents for market risk and operational risk.
3 Ratio of core capital to the sum total of the exposure values of all assets and off-balance-sheets items.

Other information

	31/12/2023	31/12/2022
Employees (in FTEs)	9,620	10,866
Branch offices	371	430

Contents

Corporate Structure and Business Model

Legal corporate structure

UniCredit Bank GmbH (HVB), formerly UniCredit Bank AG, headquartered in Munich is the parent company of HVB Group. HVB is an affiliate of UniCredit S.p.A., Milan, Italy (UniCredit) and the HVB subgroup is an integral part of the UniCredit corporate group.

Since the shares held by minority shareholders of HVB were transferred to UniCredit compliant with Section 327a of the German Stock Corporation Act (Aktiengesetz – AktG), as resolved at the Annual General Meeting of Shareholders in June 2007 and entered in the Commercial Register on 15 September 2008, UniCredit has held 100 percent of the shares in HVB. Thus, trading in HVB shares officially ceased. As a capital market-oriented company, HVB remains listed on securities exchanges as an issuer of Pfandbriefe, bonds and certificates, among other things.

With effect from 15 December 2023, UniCredit Bank AG was transformed into UniCredit Bank GmbH by way of a change of legal form pursuant to Section 190 ff of the German Transformation Act (Umwandlungsgesetz – UmwG).

Organisation of management and control

Management function and Supervisory Board

Since the change in legal form to that of a limited liability company, i.e. a “GmbH” (Gesellschaft mit beschraenkter Haftung), the Executive Board has become the management body of HVB. Therefore, since the change of legal form, the provisions of the German Act on Limited Liability Companies (GmbH-Gesetz) apply to the management of the company instead of the provisions of the German Stock Corporation Act (Aktiengesetz - AktG). Within the framework of its management function, the Executive Board is responsible above all for corporate planning, the strategic orientation of the company, and for ensuring adequate risk management and risk controlling. It provides the Supervisory Board with reports at regular intervals, particularly on all issues relevant to corporate planning and strategic development, the course of business, the state of the Bank and its subsidiaries, including the risk situation, and significant compliance issues. The members of the Executive Board are jointly responsible for managing the Bank and for the proper business organisation of HVB. The responsibilities of the Executive Board of HVB are specified in a schedule of responsibility, which forms part of the Executive Board’s internal regulations. The Executive Board’s internal regulations also specify in particular the matters reserved for the Executive Board as a whole, the requirements for adopting resolutions and the required majorities.

The Supervisory Board of HVB has twelve members and has an equal number of employee and shareholder representatives. The Supervisory Board is responsible for monitoring and regularly advising the Executive Board as it conducts its business. The Supervisory Board has adopted by-laws specifically defining the details of the work within the Supervisory Board, the creation of committees and their tasks, and the tasks of the Chairman of the Supervisory Board. In addition, the by-laws state that certain types of transactions require the approval of the Supervisory Board.

The following changes occurred in the reporting period:

Supervisory Board
Mr Gianpaolo Alessandro resigned from the Supervisory Board as shareholder representative with effect from the end of 31 August 2023. Dr Michael Diederich was elected to the Supervisory Board in his place in 2022 with effect from 1 September 2023.

Executive Board
Ms Monika Rast took over the Private Clients Bank area as a member of the Management Board with effect from 1 March 2023. Ms Marion Höllinger was elected Spokeswoman of the Management Board from 1 March 2023 by the Management Board in agreement with the Supervisory Board and took over as CEO with effect from 1 March 2023. Mr Boris Scukanec Hopinski resigned from the Management Board with effect from the end of 30 April 2023 and Mr Christian Reusch with effect from 15 December 2023. The area previously managed by Mr Boris Scukanec Hopinski was taken over by Mr Artur Gruca on 1 May 2023. Due to the expiry of their appointments, Ms Monika Rast is leaving the Bank with effect from the end of 29 February 2024 and Dr Jürgen Kullnigg with effect from the end of 31 March 2024. Mr Marco Iannaccone and Mr Pierpaolo Montana were appointed to the Bank's Executive Board with effect from 1 April 2024.

A list showing the names of all of the members of the Supervisory Board and the Executive Board of HVB is given in the Note "Members of the Supervisory Board" and the Note "Members of the Executive Board" in the notes to the consolidated financial statements.

Combined Management Report
The Management Report of UniCredit Bank GmbH (HVB) and the Group Management Report of HVB Group are combined in accordance with Section 315 (5) of the German Commercial Code (Handelsgesetzbuch – HGB) in conjunction with Section 298 (2) HGB. The annual financial statements and the consolidated financial statements (including the Combined Management Report) are published jointly in the German Company Register.

Statement pursuant to Section 289f (4) of the German Commercial Code
For the proportion of women on the Supervisory Board, HVB's Supervisory Board had set a target that five-twelfths of the members should be women, which is to be achieved by 31 December 2025. Both the shareholder and the employee representatives on the Supervisory Board are to contribute to achieving this target. As at 31 December 2023, there were four women on the Supervisory Board: Dr Claudia Mayfeld, Ms Fiona Melrose and Ms Sabine Eckhardt as shareholder representatives and Ms Claudia Richter as an employee representative.

For the proportion of women on the Executive Board, the Supervisory Board had set a target that three-eighths of the members should be women, which is to be achieved by 31 December 2025. With Marion Höllinger on the Management Board and the appointment of Monika Rast to the Management Board as per 1 March 2023, the proportion of women on the Management Board was two-eighths by 30 April 2023. Following the departure of Boris Scukanec Hopinski at the end of 30 April 2023 and the resulting reduction from eight to seven members on the Management Board, the current proportion was increased to two sevenths. Due to these changes, HVB's Supervisory Board set a new target on 20 October 2023 that three-sevenths of the members of the Executive Board should be women, which is to be achieved by 31 December 2027.

Corporate Structure and Business Model (Continued)

For the proportion of women in the first and second management levels below the Executive Board respectively, the Executive Board set the following targets to be achieved by the end of 2027: 50 percent of women in both the first and second management levels below the Executive Board. As diversity, equity & inclusion is a strategically important topic for the Bank and increasing the number of women in all management levels also plays a crucial role in this context, the Bank intends to achieve a gender balance across all levels in the medium term. As at the reporting date of 31 December 2023, the proportion of women in the first management level below the Executive Board amounted to 30 percent and in the second management level below the Executive Board to 21 percent. These percentages show that the targets set have not yet been achieved for the first and second levels below the Executive Board.

To improve the proportion of women particularly in the second management level below the Executive Board, comprehensive measures have been initiated and consistently expanded. Topics such as careers after returning from parental leave, flexible management models, a further reduction in the gender pay gap as well as comprehensive initiatives to network women with one another and increase their visibility vis-à-vis top management are to be named in this connection.

Non-financial reporting
In the context of transposing the Corporate Social Responsibility Directive into German law, certain large companies have been obliged to add a non-financial group statement to their group management report since the 2017 financial year. This non-financial reporting covers labour, social and environmental issues (sustainability), respect for human rights and anti-corruption. As a fully consolidated subgroup of the UniCredit corporate group, HVB Group abstains from publishing its own non-financial statement in accordance with Section 315b (2) of the German Commercial Code (Handelsgesetzbuch – HGB). The non-financial group statement is issued, with a discharging effect for HVB, by our parent company, UniCredit S.p.A., Milan, and can be found on UniCredit's website under "ESG AND SUSTAINABILITY" in "Sustainability Reporting" (www.unicreditgroup.eu/en/esg-and-sustainability/sustainability-reporting.html).

Overall bank management
HVB Group's objective is to generate a sustainable increase in corporate value. To take account of the need for value-based management, the principle of overall bank management is based on earnings, risk, liquidity and capital aspects. This principle is explained in more detail in the Risk Report (please refer in particular to "Overall bank management" within the section entitled "Implementation of overall bank management" in the Risk Report).

The key performance indicators (KPIs) applied within the framework of HVB Group's overall bank management are stated at the relevant places in the Combined Management Report. In addition to the profit/loss after tax as the relevant measure of earnings for internal management purposes, the following KPIs are used in internal management: the cost-income ratio and the return on allocated capital (RoAC).

The cost-income ratio is calculated from the ratio of operating costs to operating income and is based on the segmented income statement, which is relevant for the corporate management and planning of HVB Group. The reconciliation of the segmented income statement to the income statement used in the description of the operating performance of HVB Group is shown in the Note “Income statement, broken down by operating segment”. The main differences in operating income are the expenses for the bank levy as well as the earnings from investment properties and inventories (buildings measured according to IAS 2); regarding operating costs, unscheduled write-ups and write-downs on properties used by the Bank and contributions to the German deposit guarantee scheme should be mentioned in particular.

The RoAC shows the annualised consolidated profit of HVB Group in relation to allocated capital. With RoAC, allocated capital is determined on the basis of the average risk-weighted assets (including equivalents for market risk and operational risk) whereby 13.00% equity is allocated to the average risk-weighted assets.

Business model, main products, sales markets, competitive position and locations in the 2023 financial year

HVB Group is part of UniCredit, a pan-European commercial bank. It offers its broad customer base a banking network across Western, Central and Eastern Europe that is both regional and international in focus. Its integration into UniCredit enables HVB Group to exploit its international network and economies of scale. UniCredit has a divisionally and regionally diversified business model. It provides its customers access to commercial banks in 13 countries and other offices worldwide.

As a universal bank, HVB with its subsidiaries is a provider of banking and financial services and focuses on Germany. It offers a comprehensive range of banking and financial products and services to retail, corporate and public sector customers, international companies and institutional customers. Digitalisation and our commitment to ESG standards, which are described in their current form in UniCredit’s Integrated Report, are key factors of our service. HVB Group has 371 offices around the world – 273 of which are HVB offices in Germany which have been adapted to changing customer behaviour in recent years. In addition to its branch network, customers are served irrespective of their location through its remote channels. For detailed information on the offices, please refer to the Note “Offices” in the notes to the 2020 consolidated financial statements.

The operating segments

HVB Group is divided into the following operating segments:
– Retail
– Corporates
– Other

A detailed description of the individual operating segments, particularly regarding the customers allocated to them, the products and services offered, the organisational focus as well as the competitive situation and the locations is contained in the Note “Method of segment reporting by operating segment” and the Note “Components of segment reporting by operating segment” in the notes to the 2023 consolidated financial statements.

Corporate Structure and Business Model (Continued)

UniCredit Unlocked

We successfully implemented the group-wide UniCredit Unlocked strategic plan in the 2023 financial year. This multi-year plan aims at boosting profitability and capital efficiency. Its main focus is on growth in selected customer segments coupled with an efficient service model and creating a unique customer experience. We are thus investing in automation and front-to-back process optimisation. In addition, we are promoting a holistic view of sustainability in line with ESG principles and continuing to use resources and cooperation possibilities across countries and companies within the UniCredit corporate group. At the same time, a further adjustment of our staffing levels is planned. As in the past, we will also do this in the future through socially responsible measures and by creating new employment prospects or concluding severance agreements. Moreover, we are responding to demographic change by specifically promoting young talent.

Corporate acquisitions and sales, and other major changes in the group of companies included in consolidation

No significant corporate acquisitions or disposals were made in the reporting period.

The scope of consolidation of HVB Group was reduced by a total of 20 companies as at 31 December 2023 compared with year-end 2022. This is partly due to the merger of 10 previously fully consolidated real estate companies including the properties held by these companies with UniCredit Bank GmbH.

Detailed information on changes in the group of companies included in consolidation can be found in the Note "Companies included in consolidation" in the notes to the consolidated financial statements.

Economic Report

Underlying economic conditions

According to the International Monetary Fund (IMF), global economic growth came to 3.1% in 2023 after growth of 3.5% in the previous year. One important reason for the slower growth momentum was the still comparatively high inflation rates in many industrialised and emerging countries which weighed down the real income of private households. Central banks such as the Federal Reserve and the ECB continued to tighten their monetary policy in order to lower inflation rates further. This put additional pressure on the economy. By contrast, global supply chains increasingly returned to normal allowing companies to work off their order backlog.

The US economy grew by 2.5% in 2023 after recording growth of 1.9% in the previous year (according to the US Bureau of Economic Analysis (BEA)). Growth in 2023 was caused primarily by an increase in private consumer spending. On the one hand, private households reduced their surplus savings accumulated during the pandemic. On the other hand, employment and wages increased, although the momentum slowed somewhat as the year 2023 progressed. Construction spending was up, not least on account of the stimulating impact of the Inflation Reduction Act for commercial construction. The Federal Reserve raised its key interest rate further from 4.5% in January 2023 to 5.5% in July 2023 to curb high inflation rates.

China’s economy grew by 5.2% in 2023 and thus more strongly than in the previous year when growth came to a mere 3.0% (according to the National Bureau of Statistics of China). The most important trigger for faster momentum was China opening its economy after closing a number of economic sectors due to the pandemic. However, the downward trend in the construction industry and a shrinking population dampened growth.

In the eurozone, the economy grew by 0.5% in 2023 (according to Eurostat). Growth was particularly strong in Spain (up 2.5%), while it was considerably weaker in France (up 0.9 %) and Italy (up 0.7 %). Germany even saw a contraction of 0.3% in economic output. Persistently high energy costs and dwindling construction investment due to a significant increase in construction costs and interest rates weighed heavily on the German economy. In addition, there was a slowdown in the global economy which dampened the German economy further on account of its strong dependence on exports.

The inflation rate in the eurozone came to 5.4% in the full year 2023 after 8.4% in the previous year (according to Eurostat). Due to the still above-average level of inflation, the ECB raised its key interest rate (deposit rate) further from 2.0% at the beginning of 2023 to 4.0% in September 2023.

The 0.3% decline in German economic output in 2023 was primarily due to a reduction in private consumer spending, lower construction investment and a decline in exports. The labour market remained robust: the number of employed people was up by around 0.35 million (according to the German Federal Employment Agency) and thus reached a new record high. The inflation rate amounted to 5.9% on average over 2023 after 6.9% in the previous year (according to the German Federal Statistical Office).

Economic Report (Continued)

Sector-specific developments

The high inflation led to a significant tightening of monetary policy by the European Central Bank (ECB) in 2023, in particular through key interest rate hikes totalling 2.0 percentage points up until September 2023. However, the ECB did not raise interest rates any further after September 2023 and inflation fell significantly in the second half of 2023. Market participants expect the ECB to cut interest rates for the first time in 2024. In addition to raising key interest rates, the ECB accelerated the reduction in its balance sheet. After the ECB ended its net asset purchases under the asset purchase programme (APP) in 2022, the ECB started to reduce its APP portfolio by €15 billion per month from March 2023. From July 2023 onwards, maturities under the APP portfolio were no longer reinvested, which will further accelerate the reduction of the portfolio. As at December 2023, the ECB still held bonds totalling €3.0 trillion in its APP portfolio compared with €3.3 trillion as at year-end 2022. The ECB also ended net purchases under its second purchase programme, the pandemic emergency purchase programme (PEPP), on 1 July 2022. In addition, the ECB announced in December 2023 that it would be reducing the PEPP portfolio by €7.5 billion from July 2024 and would not be reinvesting all the PEPP maturities any further from January 2025. The PEPP is a programme comprising public sector and private assets currently totalling €1.7 trillion. Due to the increase in credit spreads for the government bonds of peripheral countries, the ECB decided to establish a new transmission protection instrument (TPI) in July 2022. The ECB Governing Council considers it necessary to establish the TPI to support the effective transmission of monetary policy. The TPI supplements the ECB Governing Council's raft of instruments. This allows government bonds to be purchased to counter unwarranted, disorderly market dynamics that pose a serious threat to the transmission of monetary policy across the eurozone. However, since the TPI was introduced in 2022, there has been a significant decline in credit spreads for the government bonds of peripheral countries, which had a beneficial effect again in 2023.

On the regulatory side, an agreement was reached in 2023 on the implementation of the finalised Basel III reforms (also known as Basel IV) in Europe. As part of this agreement, negotiators agreed on how the output floor (lower limit of capital requirements) can be implemented. This limits the variability of banks' capital requirements calculated on the basis of internal models. Consensus was reached on transitional arrangements in order to give market participants sufficient time to make adjustments. As special regulations, the agreement envisages long transitional periods for risk positions vis-à-vis companies without an external credit rating and housing loans collateralised by real estate. The introduction of the finalised Basel III standard in Europe is planned for the beginning of 2025, which means that risk weightings and risk-weighted assets for banks will gradually increase from 2025 onwards.

As regards macroprudential regulation, the German Federal Financial Supervisory Authority (BaFin) increased the countercyclical capital buffer from 0.0% to 0.75% of risk-weighted assets on domestic risk positions on 1 February 2022. Institutions have had to apply this countercyclical capital buffer to calculate the institution-specific countercyclical capital buffer since 1 February 2023. In addition, BaFin introduced a sectoral systemic risk buffer of 2.0% of risk-weighted assets on loans secured by residential property, which banks must comply with from 1 February 2023. Both measures have led to a further increase in capital requirements for banks.

In April 2023, the European Commission proposed a comprehensive legislative package for reforming bank resolution and deposit guarantee schemes. In this context, the Commission proposes adjustments to the bank crisis management framework and deposit insurance to safeguard financial stability and manage bank failures in an orderly and economically efficient manner. With this project, the Commission intends to further harmonise deposit guarantee schemes in the EU that have been structured differently up until now.

A little over a year after the 6th amendment to the Minimum Requirements for Risk Management (MaRisk), BaFin published the 7th MaRisk amendment in June 2023 via a circular. The amendment includes guidelines of the European Banking Authority (EBA) on lending and credit monitoring as well as dealing with sustainability risk.

European banks must meet the minimum requirements for own funds and eligible liabilities (MREL) from January 2024 onwards. Overall, the banks had already largely met the requirements as at 30 September 2023 (Single Resolution Board, SRB).

Risk premiums on corporate and bank bonds in the European credit market moved sideways for the most part in 2023. However, the credit spreads of companies with good credit ratings fell significantly after November 2023 as the trend of falling inflation rates set in further. From November 2023 until year-end 2023, the risk premiums for senior bank bonds also narrowed significantly by 14 basis points. In the market for government bonds, the risk premium for ten-year Italian sovereign bonds fell a substantial 212 basis points to 168 basis points in 2023 compared with ten-year German sovereign bonds. The ECB's announcement about the TPI instrument coupled with the flexibility in reinvesting maturities in the PEPP supported investor confidence after which the spread margin fell significantly again. In particular, retail investors and foreign investors increasingly emerged as buyers of sovereign bonds.

The three-month Euribor increased significantly from 2.16% at the beginning of 2023 to 3.91% at year-end 2023 while the EUR swap rate with 10-year maturity fell from a level of around 3% to 2.5% in the same period. The higher level of interest rates is positive for the net interest income of banks. The market is currently expecting several interest rate cuts in 2024, although interest rate forwards are pricing in more interest rate cuts than the consensus estimate of economists and there is still considerable uncertainty about the continued trend in interest rates. The bond market showed a high level of fluctuation in 2023. In the USA, the return on ten-year US treasury bonds rose from its lowest level of 3.3% in April 2023 to 5.0% in October 2023, then to fall again to 3.9% by year-end 2023. The return on ten-year bonds of the Federal Republic of Germany likewise fell from its annual peak of almost 3% in October 2023 to around 2% at year-end 2023.

Lending was down in the first half of 2023. New business with real estate loans remained under pressure from the significant increase in interest rates and the sharp rise in construction costs. In Germany, the volume of new business with housing loans extended to private households in the first nine months of 2023 was 43% lower than the level in 2022. As regards lending to the business sector, the last ECB survey on lending in January 2024 showed continuing restraint in demand for corporate loans. The higher general level of interest rates and the reluctance of businesses to invest in fixed assets continued to curb the demand for credit, especially for long-term loans. At the same time, loan terms in the corporate banking business became more restrictive.

Economic Report (Continued)

The stock markets developed favourably overall in 2023, although the economic environment continued to deteriorate. The main driver of positive share prices was less concern over Europe's energy supply coupled with lower inflation rates, which had a positive effect on the risk appetite. The EURO STOXX 50 rose by 19% in 2023. By the end of February 2023, bank shares initially performed better than the overall market. However, the EURO STOXX Banks (Price) Index fell disproportionately to the overall market in March 2023 following the crisis involving some US regional banks but was able to catch up with the overall market again by the end of the year. The rapid and comprehensive support measures put in place by the Federal Reserve and the US Federal Deposit Insurance Association (FDIC) in the wake of the failure of some US regional banks bolstered investor confidence and prevented this having a contagious effect on other regional banks. At the same time, more consolidations were seen in the US banking market.

In March 2023, there was also a merger in Switzerland between the former Credit Suisse and UBS following the intervention of the Swiss Federal Department of Finance, the Swiss National Bank and the Swiss Financial Market Supervisory Authority (FINMA). Previously, Credit Suisse had come under pressure due to an outflow of customer deposits. The merger was supported by a guarantee from the Swiss federal government and additional liquidity assistance from the Swiss National Bank (SNB). A subject of controversial debate in the market was the complete write-off of Credit Suisse's AT-1 bonds totalling CHF16 billion with Credit Suisse shareholders being partially compensated through the exchange of Credit Suisse shares for UBS shares. However, European regulators subsequently made it clear in a statement that within the European Union equity investors are the first to bear losses and only after that investors in AT-1 bonds. Several successful new issues of AT1-bonds also contributed to a rapid recovery of the market segment.

The topic of sustainability continues to be of major importance in the banking sector. On the one hand, the share of ESG-compliant issues in the banking sector remained at a high level with more than 20% of the senior bonds issued in the banking sector in 2023 being placed in line with ESG standards. On the other hand, banks worked on further sustainability goals and data, in particular regarding the CO2 intensity of the credit book.

Operating performance of HVB Group

All the statements regarding the operating performance of HVB Group in this Combined Management Report refer to the structure of our income statement shown below.

In addition to the profit/loss after tax as the relevant measure of earnings for internal management purposes, the following key performance indicators (KPIs) are used in internal management: the cost-income ratio based on the segmented income statement and the return on allocated capital (RoAC).

	1/1-31/12/2023	1/1-31/12/2022	CHANGE	
INCOME/EXPENSE	**€ millions**	**€ millions**	**€ millions**	**in %**
Net interest	2,739	2,626	113	4.3
Dividends and other income from equity investments	30	31	(1)	(3.2)
Net fees and commissions	1,165	1,120	45	4.0
Net trading income	1.564	932	632	67.8
Net gains/(losses) on financial assets and liabilities at fair value	(117)	149	(266)	
Net gains/(losses) on derecognition of financial instruments measured at cost	(17)	29	(46)	
Net other expenses/income	(255)	(138)	(117)	84.8
of which net valuation/disposal of investment properties	(69)	(4)	(65)	>100.0
OPERATING INCOME	**5,109**	**4,749**	**360**	**7.6**
Payroll costs	(1,334)	(1,415)	81	(5.7)
Other administrative expenses	(1,045)	(1,087)	42	(3.9)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(150)	(109)	(41)	37.6
Operating costs	**(2,529)**	**(2,611)**	**82**	**(3.1)**
OPERATING PROFIT/(LOSS)	**2,580**	**2,138**	**442**	**20.7**
Net write-downs of loans and provisions for guarantees and commitments	(167)	(299)	132	(44.1)
NET OPERATING PROFIT/(LOSS)	**2,413**	**1,839**	**574**	**31.2**
Provisions for risks and charges	32	11	21	>100.0
Restructuring costs	(309)	(80)	(229)	>100.0
Net gains/(losses) on remeasurement of consolidated companies	3	(2)	5	
PROFIT/(LOSS) BEFORE TAX	**2,139**	**1,768**	**371**	**21.0**
Income tax for the period	(404)	(467)	63	(13.5)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**1,735**	**1,301**	**434**	**33.4**
attributable to the shareholder of UniCredit Bank GmbH	1,736	1,301	435	33.4
attributable to minorities	(1)	—	(1)	

Economic Report (Continued)

Net interest
In the reporting period, net interest comes to €2,739 million compared with €2,626 million in the previous-year period and is thus a noticeable €113 million (4.3%) higher than the previous-year figure. The rise in net interest is largely due to wider margins in the deposit-taking business as a result of the higher interest rate environment. This interest rate environment led to a sharp increase in interest income from financial assets accounted for at cost, which rose from €3.0 billion in the previous-year period to €7.1 billion in the reporting period. In contrast, interest expense for liabilities at cost were up from €1.1 billion to €3.8 billion. Overall, the discontinuation of the positive effects from the TLTRO III programme in the previous-year period was more than compensated for.

Due to the further increase in interest rates, the Retail and Corporates operating segments benefited from higher margins mainly in the deposit-taking business. In parallel, the rise in funding expenses for the held-for-trading portfolio had a negative impact in the Corporates operating segment. This was offset by an increase in net trading income on account of higher market interest rates.

Dividends and other income from equity investments
Dividends and other income from equity investments totalled €30 million in the reporting period and are thus virtually unchanged compared with the previous-year period (€31 million).

Net fees and commissions
In the reporting period, net fees and commissions came to €1,165 million and are thus a marked €45 million (4.0%) higher compared with the previous-year period. This is largely due to an increase in net fees and commissions in securities services for customers and higher commission income in the lending business with corporate customers.

Net trading income
In the reporting period, net trading income was up a sharp €632 million (67.8%) to €1,564 million. This was mainly due to income from the rate derivatives business in the areas of fixed income, currencies and commodities, and equities and credit trading. Key factors driving total income were stable customer demand for hedging transactions at a high level and rising, high market interest rates. The countereffect can be seen in net interest.

Net trading income includes valuation discounts in the context of the fair value measurement of derivatives, particularly credit value adjustments and funding value adjustments. The reduction in valuation discounts in connection with the fair value measurement had a positive impact and resulted in income of €35 million. In the previous-year period, income totalled €62 million.

Net gains/losses on financial assets and liabilities at fair value
A net loss of €117 million on financial assets and liabilities at fair value is recognised for the reporting period. A net gain of €149 million was generated in the previous-year period.

There was a sharp decline in hedge accounting effects. In the reporting period, a loss of €202 million was generated after a gain of €265 million in the previous-year period. This is attributable to a stabilisation of the interest rate environment in the reporting period and the associated reduction in changes in the value of hedged items and hedging transactions. Thus, for the portfolio fair value hedges as HVB's main hedge relationships, on the one hand, the fair value of the hedged items fell from €6,205 million in the previous year to minus €1,722 million in the reporting year. On the other hand, the fair value of the hedging transactions rose from minus €5,913 million in the previous year to €1,527 million in the reporting year. There were no hedge inefficiencies with material effects.

In the reporting period, a net gain of €49 million was generated on financial liabilities designated at FVTPL compared with a net loss of €113 million in the previous-year period. The positive change in the derivatives used for economic hedging exceeds the negative change in the value of the securities issued. In the reporting period, a gain of €15 million was generated on financial assets mandatorily at FVTPL compared with the loss of €66 million in the previous-year period. In this case, the positive contributions from securities more than compensated for the negative contributions from derivatives concluded for economic hedging.

This item also includes the sharp decline in the fair value measurement of equity instruments at a positive amount of €20 million compared with the €46 million in the previous-year period. Besides income from the realisation of share transactions, the decline is driven mainly by write-downs on property fund units held in the Wealthcap subsidiary.

Net gains/losses on derecognition of financial instruments measured at cost
This item reports a loss of €17 million for 2023 after a gain of €29 million in 2022. The result is thus considerably lower than the previous-year figure. The loss is primarily attributable to the sale of loans and receivables with customers. Thresholds for sales of assets measured at cost were observed in this connection. These are generally intended to be held and are sold only in exceptional cases. The gain in the previous-year period was largely due to the premature derecognition of liabilities from the TLTRO III programme at the time on account of the ECB's adjustment of the conditions in 2022.

Net other expenses/income
Net other expenses/income shows a net expense of €255 million for the reporting period, which is thus a sharp increase on the net expense in the previous-year period of €138 million.

Within this total, the negative balance of expenses/income from investment properties increased by €65 million to €69 million in 2023 compared with the €4 million in the previous-year period. Moreover, the reporting period contains €75 million in depreciation and write-downs on inventories (buildings measured compliant with IAS 2; 2022: no depreciation or write-downs). This development was partially offset by the lower bank levy, which was down by €62 million.

At €179 million in the reporting period (2022: €241 million), the bank levy is the largest single item contained in net other expenses/income. The lower expense for the bank levy is partly due to the expected general decline in covered deposits (basis of assessment for the bank levy) in 2023 and to the reduction in liabilities relevant for calculating the contribution at HVB as a further factor influencing the amount set for the bank levy.

Economic Report (Continued)

Operating costs
Operating costs totalled €2,529 million in the reporting period and are thus a marked €82 million (3.1%) lower than the previous-year figure of €2,611 million. This shows that HVB Group has succeeded in reducing costs in line with the UniCredit Unlocked strategic plan and in combating the effects of inflation at the same time.

Payroll costs declined noticeably by €81 million (5.7%) to €1,334 million in the reporting period compared with €1,415 million in the previous-year period, especially against the backdrop of adjusted staffing levels. As a result, wages and salaries as well as expenses for pensions declined overall. Other administrative expenses totalled €1,045 million in the reporting period, which is a marked decrease of €42 million (3.9%) compared with the previous-year period. Despite higher inflation rates, this decrease was achieved on the back of strict cost management in line with our UniCredit Unlocked strategic plan.

An opposite trend was seen in depreciation, amortisation and impairment losses on property, plant and equipment, software and right-of-use assets that post a sharp increase of €41 million (37.6%) to €150 million in the reporting period compared with €109 million in the previous-year period. This is mainly attributable to unscheduled write-downs on properties owned and occupied by the Bank as a result of a decline in market values.

Operating profit (before net write-downs of loans and provisions for guarantees and commitments)
Operating profit (before net write-downs of loans and provisions for guarantees and commitments) amounted to €2,580 million in the reporting period, which represents a sharp rise of €442 million (20.7%) over the previous-year figure of €2,138 million.

The cost-income ratio (ratio of operating costs to operating income) is based on the segmented income statement, which is relevant for the corporate management and planning of HVB Group, improved significantly to 44.3% in the reporting period after 49.9% in the previous-year period and thus exceeded the forecast of a marked improvement. The segmented income statement used for the cost-income ratio is shown in the Note “Income statement, broken down by operating segment”.

Net write-downs of loans and provisions for guarantees and commitments
In the reporting period, net additions to net write-downs of loans and provisions for guarantees and commitments totalled €167 million after net additions of €299 million to net write-downs of loans and provisions for guarantees and commitments in the previous-year period. This represents a sharp decline of €132 million (44.1%). The individual effects that offset each other are described below.

In the reporting period, a net amount of €113 million in portfolio allowances (general loan loss provisions - GLLP) was reversed following a net addition of €261 million in the previous-year period. The models used to calculate expected credit losses generally reflect effects from the adjustment of macroeconomic factors. In addition, overlays were applied for certain sub-portfolios that are particularly sensitive to certain risks. These overlays are to be considered supplementary measures to the expected loss models. On the one hand, these risks are geopolitical risks caused by the sudden increase in energy costs, inflation and interest rates for both companies and private individuals. On the other hand, these are risks that have arisen especially in the commercial real estate and construction industry (CRE) as a result of the persistently high level of interest rates. Both overlays largely offset each other since the geopolitical overlay results in a reversal (or a change to specific loan loss provisions) and the CRE overlay in an addition.

Changes in methodology are a further factor for the reversal of a general loan loss provision which was entered in 2022 as a post-model adjustment for products for which the (entire) repayment is made shortly before the maturity of the financing and was reversed in 2023. Contrary to expectations, detailed model implementation enabled a lower loan loss provision to be calculated. There was a reversal also due to the adjustment made to the probability of default (PD) parameters of the acquisition and leveraged finance model stemming from a time series expansion. There was also an addition due to a post model adjustment to an imminent update to the loss-given default model. In view of the macroeconomic situation, updated forward-looking macroeconomic scenarios (marginally lower growth rates in the gross domestic product for 2024, 2025 and 2026 and the lower house price index) resulted in additions to general loan loss provisions. Please refer to the Note “Impairment of financial assets” for further information.

In the reporting period, net additions to specific loan loss provisions total €280 million after net additions of €38 million in the previous-year period. Additions to specific loan loss provisions on account of defaults (no concentration on a specific sector) were partly compensated for by reversals of existing specific loan loss provisions. The need for specific loan loss provisions for direct Russia exposure in connection with the Russia-Ukraine conflict remained at a relatively moderate level in the reporting period.

Provisions for risks and charges
In the reporting period, net income of €32 million was generated from the reversal of provisions for risks and charges. In contrast, there was net income of €11 million from the reversal of provisions for risks and charges reported in the previous-year period. No individual items of significance occurred in the reporting period or in the previous-year period.

Restructuring costs
Restructuring costs totalled €309 million in the reporting period (previous-year period: €80 million).

Restructuring costs in the reporting year are based on measures that are built on the already existing UniCredit Unlocked strategic plan. The strategic guidelines of the groupwide Unlocked plan in terms of simplification, customer focus and digitalisation are still valid. In the reporting period, further strategic measures were started within the framework of the UniCredit Unlocked strategic plan to support the achievement of the long-term goals of the strategic plan. Among other things, this includes the reorganisation of the Digital & Information and Operations business areas into the Digital & Operations business area, the simplification of HVB’s trading activities through the gradual transfer of individual trading activities to UniCredit S.p.A. and further planned reorganisations.

These measures and the changes in framework conditions require further adjustments to be made in the Bank’s staff planning. Therefore, most of the restructuring costs in the amount of €191 million relate to the planned, socially compatible reduction in staffing levels, which is to be achieved above all by natural fluctuation, early retirement solutions and severance agreements.

Economic Report (Continued)

HVB Group uses the UniCredit groupwide service offering of IT activities and certain other administrative activities of UniCredit S.p.A. These services are charged to HVB Group by UniCredit S.p.A. according to origin based on cost. In the course of the reorientation of the UniCredit corporate group, further restructuring measures involving the IT activities concerned/other service areas are planned for 2023 and 2024. HVB Group is assuming the pro rata costs of €90 million in 2023 for the areas of UniCredit S.p.A. to be restructured as these provide their services almost exclusively for HVB Group. This one-time payment is offset by a significant reduction in costs in the future as UniCredit S.p.A. can provide equivalent services more cost effectively in the future.

In the previous-year period, restructuring costs of €80 million relate, among other things, to measures for the migration of various trading systems to a central trading system. The historically grown structure of HVB Group's trading systems is to be made considerably easier by transferring the activities concerned to one trading platform. Furthermore, an amount of €46 million of the restructuring costs relates to payroll costs.

Profit before tax, income tax for the period and consolidated profit/loss
In the reporting period, HVB Group generated profit before tax of €2,139 million, which is a sharp €371 million (21.0%) higher than the profit before tax of €1,768 million generated in the previous-year period.

Income tax expense amounted to €404 million in the reporting period and is therefore a substantial €63 million (13.5%) lower than the income tax expense of €467 million for the same period in the previous year. The lower tax expense in the reporting year is largely due to tax refunds for previous years as a result of the revaluation of tax risks. For detailed information on the tax expense, please refer to the Note "Income tax for the period".

After deducting income tax for the period, HVB Group generated a consolidated profit of €1,735 million in the reporting period, which represents a sharp increase of €434 million (33.4%) compared with the consolidated profit of €1.301 million in the previous-year period.

The forecast made in the 2022 Annual Report of a sharp increase in profit before tax and also a significant increase in profit after tax for the 2023 financial year was confirmed in the reporting year and was exceeded for profit after tax.

Return on allocated capital
The profitability ratio return on allocated capital (RoAC) shows the annualised consolidated profit of HVB Group in relation to allocated capital. With RoAC, allocated capital is determined on the basis of the average risk-weighted assets (including equivalents for market risk and operational risk) whereby 13.00% equity is allocated to the average risk-weighted assets. In the reporting period, this ratio rose to 16.1% after 11.0% in the previous-year period.

The RoAC is thus considerably higher than in the previous-year period and significantly higher than the figure forecast for the reporting period. Compared with the 2022 financial year and the forecast, this is attributable to an improvement in consolidated profit in 2023.

Segment results by operating segment
The structure of the income statement used for internal management purposes is shown; any deviations to the presentation of the operating performance are described in detail in the "Segment reporting" section of the consolidated financial statements. When calculating totals, minor deviations might occur as a result of rounding.

OPERATING INCOME (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Retail	1,548	1,359
Corporates	3,589	3,440
Other	292	250
Total	**5,430**	**5,050**

NET OPERATING PROFIT/(LOSS) (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Retail	450	449
Corporates	2,202	1,594
Other	192	96
Total	**2,844**	**2,140**

PROFIT/(LOSS) BEFORE TAX (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Retail	194	436
Corporates	1,859	1,274
Other	75	91
Total	**2,128**	**1,801**

PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS)) (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Retail	167	302
Corporates	1,476	865
Other	83	100
Total	**1,725**	**1,267**

Economic Report (Continued)

General comments on the business situation in 2023 and comparison with last year's expectations
Similar to the previous year, the 2023 reporting year was characterised by the ongoing conflict between Russia and Ukraine. Partly as a result of this, inflation rates in many countries remained at a significantly higher level. In 2023, key central banks, such as the ECB or the FED, continued to significantly tighten monetary policy, which began in 2022, and raised interest rates further over the course of the year. Thus, the 3-month Euribor in 2023 rose from positive 216 basis points at the outset of 2023 to positive 391 basis points at year-end 2023.

Operating income was up by a substantial €360 million, or 7.6%, to €5,109 million in the reporting period compared with the previous-year period. This was mainly due to the sharp rise of €632 million in net trading income and the marked increase of €113 million in net interest. Net trading income benefitted from the high level of rising market interest rates. Due to the rise in interest rates, a considerably higher interest margin was achieved in the deposit-taking business, which was the key factor driving the increase in net interest. This more than offset the decline in net gains/losses on financial assets and liabilities at fair value (down €266 million compared with 2022) and lower net other expenses/income (down €117 million compared with 2022).

Compared with 2022, operating costs were down by a marked 3.1% to €2,529 million in the reporting period in line with the UniCredit Unlocked strategic plan.

Net write-downs of loans and provisions for guarantees and commitments declined significantly from €299 million in the previous-year period to €167 million in the reporting period. While additions to specific valuation allowances rose from €38 million in the previous-year period to €280 million in the reporting period, there was a net reversal of €113 million in portfolio valuation allowances (general loan loss provisions - GLLP) in 2023 after net additions of €261 million in 2022. Net additions to general loan loss provisions, which were set aside for post-model adjustments in 2022, were reversed in 2023 due to precise calculation through technical implementation for expected credit losses on credit products maturing at the end of the term. Net additions to general loan loss provisions for adjustments to the macroeconomic situation partly offset this effect.

After €80 million in the previous-year period, restructuring costs increased significantly to €309 million in the reporting period as a result of the continuation of the UniCredit Unlocked strategic plan and particularly the associated adjustments made in personnel planning.

There was a sharp rise of €371 million to €2,139 million in profit before tax in the reporting period after €1,768 million in 2022. Compared with the forecast development of HVB Group in the 2022 Annual Report, operating income rose more strongly. As forecast, a sharp decline was achieved in net write-downs of loans and provisions for guarantees and commitments.

In the reporting period, profit after tax increased significantly from €1,301 million to €1,735 million compared with the previous-year period for the reasons named above. Therefore, the projected significant rise in profit after tax was exceeded.

At 44.3%, the cost-income ratio based on the segmented income statement, which is relevant for the corporate management and planning of HVB Group, is considerably lower than the level in 2022 (49.9%) and thus exceeds the projected development of a marked improvement. The RoAC rose sharply to 16.1% in the reporting period after 11.0% in the previous-year period and thus exceeds the projected slight improvement over 2022.

The CET1 capital ratio in accordance with approved consolidated financial statements comes to 22.7% at year-end 2023 (year-end 2022: 19.6%) and thus exceeds the projected slight decline. The increase in the CET1 capital ratio is attributable to the decrease in risk-weighted assets, also as a result of continued capital efficiency measures.

Overall, the earnings position and profitability of HVB Group improved in the 2023 financial year, which is reflected in a sharp increase in profit after tax and RoAC. The assets, liabilities and financial position of HVB Group also continued to develop well, enabling an improvement in the regulatory capital ratios and the leverage ratio. Furthermore, the liquidity position is still good, as can be seen from the increase in the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) of HVB.

Financial situation

Total assets

The total assets of HVB Group come to €283.3 billion as at 31 December 2023 after €318.0 billion as at 31 December 2022 and are thus a significant €34.7 billion (10.9%) lower than year-end 2022.

On the assets side, cash and cash balances fell sharply by €13.5 billion and amount to €23,3 billion as at the reporting date compared with €36.8 billion as at year-end 2022. This decline is due to lower credit balances with central banks (down €13.4 billion), in particular as a result of the repayment of TLTRO-III funds (down €14.9 billion). Credit balances with central banks amount to €22.9 billion at the reporting date compared with €36.3 billion as at 31 December 2022. There was also a decline of €0.1 billion to €0.4 billion in cash on hand as at the reporting date.

At €68.6 billion as at 31 December 2023, financial assets held for trading fell a sharp €13.7 billion or 16.6% compared with €82.3 billion as at year-end 2022. This is the result of declines in the positive fair values of derivative instruments (down €15.0 billion, largely due to interest rate derivatives) and fixed-interest securities (down €0.5 billion). This was partially compensated by the increase in equity instruments (up €2.2 billion).

The portfolio of financial assets at FVTPL, which consists mainly of securities, fell sharply by €1.9 billion, or 37.6%, to €3.2 billion as at the reporting date compared with year-end 2022. This decline is primarily due to securities reaching final maturity.

The volume of financial assets at FVTOCI, which consists exclusively of securities, decreased a marked €0.5 billion to €9.3 billion compared with the previous year-end (€9.8 billion). The decline is primarily due to the maturities and sales of securities.

Loans and receivables with banks declined sharply by €3.7 billion to €19.6 billion, which is attributable to the decreases in reverse repos (down €2.2 billion) due to the reduction in the repo business on the assets side, cash collateral and pledged credit balances (down €1.7 billion) as a result of the decline in cash collateral for listed derivatives, other loans to banks (down €1.3 billion) and current accounts (down €0.9 billion). This was offset by securities (up €2.2 billion).

Loans and receivables with customers were down slightly by €0.4 billion to €154.5 billion, mainly due to other loans and receivables (down €4.4 billion) as well as cash collateral and pledged credit balances (down €1.0 billion). This was offset by an increase in securities (up €4.5 billion) and in mortgage loans (up €1.1 billion).

Economic Report (Continued)

On the liabilities side, the item “Deposits from banks” was down by a sharp €15.6 billion, or 30.5%, to €35.7 billion as at the reporting date (year-end 2022: €51.3 billion). This year-on-year decline is attributable to the development of deposits from central banks (down €14.5 billion) and term deposits (down €0.8 billion). The decline in deposits from central banks reflects the repayment of TLTRO III funds totalling €14.9 billion.

There was a marked reduction of €7.8 billion to €139.6 billion in deposits from customers, due mainly to the outflow of individual larger deposits in Corporates. This primarily consisted of declines in current accounts (down €16.4 billion), savings deposits (down €5.0 billion) as well as cash collateral and pledged credit balances (down €0.7 billion). These were offset by increases in term deposits (up €12.8 billion), repos (up €0.9 billion) and other liabilities (up €0.9 billion). Overall, there has been a shift in deposits from customers from sight and savings deposits to term deposits as a result of the general interest rate environment.

Compared with year-end 2022, there was a significant increase of €3.2 billion to €34.3 billion in debt securities in issue, which primarily serve to fund the medium- to long-term lending business. This increase is mainly due to a higher volume of Mortgage Pfandbriefe (up €1.2 billion) and Public-sector Pfandbriefe (up €1.0 billion).

Financial liabilities held for trading fell sharply by €15.8 billion to €48.5 billion compared with year-end 2022. This decline is solely attributable to the negative fair values of derivative financial instruments, with most of the reduction relating to interest rate derivatives. Other financial liabilities held for trading remained stable.

At €4.7 billion as at the reporting date, financial liabilities at FVTPL fell slightly compared with 31 December 2022 (€4.8 billion).

Shareholders’ equity shown in the balance sheet was up slightly by €0.2 billion to €19.9 billion as at the reporting date. This is due to the increase of €0.5 billion in profit available for distribution and was offset by the decline of €0.4 billion in other reserves.

Further and more detailed information on the individual items in the balance sheet is contained in the “Notes to the Balance Sheet” and in “Other Information” in the notes to the consolidated financial statements.

Contingent liabilities and other commitments not recognised in the balance sheet amounted to €135.8 billion at the reporting date compared with €132.8 billion at year-end 2022. This figure includes contingent liabilities in the form of financial guarantees of €29.7 billion (year-end 2022: €29.6 billion) and other commitments of €106.0 billion (year-end 2022: €103.2 billion) related to irrevocable and revocable credit commitments. The recognition of contingent liabilities from lending commitments was adjusted in the reporting period. In addition to irrevocable lending commitments, revocable lending commitments, which are generally subject to credit default risk, are also recognised. The data reported for year-end 2022 have been adjusted accordingly. The previous year figure was also adjusted by €6.5 billion. These contingent liabilities are offset by contingent assets of the same amount.

Risk-weighted assets, key capital ratios and leverage ratio of HVB Group
The total risk-weighted assets of HVB Group (including market risk and operational risk) determined in accordance with the Capital Requirements Regulation (Kapitaladäquanzverordnung – CRR II) amounted to €69.8 billion as at 31 December 2023 and were thus €12.3 billion lower than as at year-end 2022 (€82.1 billion), also as a result of measures to increase capital efficiency (through an improvement in the collateralisation ratios, among other things) in line with the group-wide UniCredit Unlocked strategic plan. Risk-weighted assets for credit risk (including counterparty default risk) fell overall by €8.8 billion to €57.0 billion, partly due to lower exposure (through a reduction in only marginally profitable lending business, among other things). Risk-weighted assets for market risk fell by €3.5 billion and came to €4.3 billion (reduction in securities portfolios and improved method for calculating risk in the commodities sector). Furthermore, risk-weighted asset equivalents for operational risk declined by €0.1 billion to €8.5 billion.

As at 31 December 2023, Common Equity Tier 1 capital compliant with the CRR II excluding hybrid capital (CET1 capital) totalled €15.9 billion and Tier 1 capital €17.6 billion. Tier 1 capital decreased slightly compared with year-end 2022 (€17.8 billion in accordance with approved consolidated financial statements). The CET1 capital ratio (ratio of Common Equity Tier 1 capital to the total amount of credit risk-weighted assets and risk-weighted asset equivalents for market risk and operational risk) and the Tier 1 capital ratio under the CRR II (including market risk and operational risk) were 22.7% and 25.2% respectively as at 31 December 2023 (31 December 2022: 19.6% and 21.6% respectively). Own funds came to €18.9 billion as at 31 December 2023 (31 December 2022: €19.2 billion in accordance with approved consolidated financial statements). The own funds ratio was 27.1% as at 31 December 2023 (31 December 2022: 23.4%). The increase in the ratios is attributable to the decrease in risk-weighted assets.

The leverage ratio is determined by dividing the Tier 1 capital measure by the total exposure measure. The total exposure measure is the sum total of the exposure values of all assets and off-balance sheet items. The leverage ratio of HVB Group came to 5.7% as at 31 December 2023 (31 December 2022 in accordance with approved consolidated financial statements: 5.4%) and is higher than the minimum requirement of 3.0%.

Ratings
HVB's creditworthiness and credit rating are assessed by the credit rating agencies Moody's Investors Service Inc. (Moody's), Fitch Ratings Limited (Fitch) and Standard & Poor's Credit Market Services Europe Limited (S&P). The Moody's, Fitch and S&P credit rating agencies are registered and certified as credit rating agencies in line with Regulation (EC) No. 1060/2009 of the European Parliament and of the Council of 16 September 2009 ("CRA Regulation").

Economic Report (Continued)

Moody's
Moody's affirmed HVB's issuer rating at 'A2' and deposit rating at 'A2'/'P-1' on 23 November 2023. The outlook was adjusted from 'negative' to 'stable'. This decision follows a rating move for Italy and the subsequent rating decision for the Italian parent company UniCredit S.p.A. The rating outlook reflects Moody's expectation that HVB's financial profile and liability structure will remain stable. The outlook also confirms that Moody's expects the credit profile of the parent company UniCredit S.p.A. to remain resilient despite the prevailing macroeconomic headwinds in the corporate group's core markets.

HVB's stand-alone rating (BCA) was affirmed at 'baa2'. Moody's continues to emphasise the strong capital base, the good asset quality and solid liquidity position of HVB. Moody's is still limiting the rating gap between HVB's stand-alone rating to a notch higher than that of its parent company which, from Moody's perspective, recognises the existing interdependencies due to the Bank's role as the global investment banking hub for the corporate group and Moody's assumptions regarding the resolution strategy.

As part of the rating decision, HVB's ratings for preferred senior unsecured bonds and the counterparty risk rating (CRR) were affirmed at 'A2' and 'A1'/'P-1' respectively.

Fitch Ratings
On 19 January 2024, Fitch affirmed HVB's ratings with a 'stable' outlook in the course of its ongoing annual review. The rating outlook continues to reflect HVB's solid capital base and profitability. HVB's issuer default rating (IDR) stands at 'BBB+'/'F2', the derivative counterparty rating at 'A- (dcr)' and the rating for deposits as well as for preferred senior unsecured bonds remains at 'A-'/'F2'. HVB's long-term issuer default rating (IDR) continues to be determined by the Bank's viability rating (stand-alone rating) which is 'bbb+'. In its credit rating assessment, Fitch emphasises the very good capital base, the improved profitability and the consistently robust refinancing and liquidity profile of HVB.

Standard & Poor's
S&P affirmed HVB's ratings during a routine credit review on 28 February 2023. The outlook for these ratings is 'stable'. HVB's issuer credit rating (ICR) stands at 'BBB+'/'A-2', the resolution counterparty rating is 'A-'/'A-2' and the rating for preferred senior unsecured debt instruments is 'BBB+'. The rating outlook reflects S&P's expectation that HVB's capital base will remain at a high level despite a deterioration expected in the economic environment and that HVB's financial results will continue to remain stable. In addition, the outlook shows that HVB's financial and operating interdependencies will not increase in the context of implementing UniCredit's Single Point of Entry (SPE) resolution strategy. Although S&P rarely awards a rating to subsidiaries with an SPE resolution strategy higher than that of the parent company, HVB's rating is a notch higher than the rating of UniCredit S.p.A. In its credit rating assessment, S&P emphasises that HVB's ratings continue to be supported by a strong capital base, the Bank's solid market position in corporate banking, its diversified and stable funding base and other measures.

Group Parent Company Information (HGB)

Group parent company information (HGB)
UniCredit Bank GmbH (HVB) has made use of the option provided in Section 315 (5) of the German Commercial Code (Handelsgesetzbuch – HGB) in conjunction with Section 298 (2) HGB and has combined HVB's Management Report with the Group Management Report of HVB Group.

As the Group parent company, HVB determines the business development of HVB Group. The management is carried out on the basis of IFRS results in line with the internal management of UniCredit S.p.A. The statements made for HVB Group in this Combined Management Report also apply to HVB to a large extent.

Due to the different accounting standards (HGB instead of IFRS), the operating performance and financial position of HVB is dealt with separately. This is done below. Please see the notes to the annual financial statements of HVB for further details.

Relations of UniCredit Bank GmbH (formerly UniCredit Bank AG) with affiliates

We have prepared a separate report on our relations with affiliates in the 2023 financial year which contains the following declaration made by the Executive Board in accordance with Section 312 of the German Stock Corporation Act (Aktiengesetz – AktG):

"We declare that in the 2023 financial year, based on the circumstances known to us at the time the legal transactions listed in this report were entered into and the measures listed in this report were undertaken or omitted, UniCredit Bank GmbH received appropriate consideration for each transaction and did not suffer any disadvantage as a result of measures undertaken or omitted, or any disadvantages arising were compensated."

Group Parent Company Information (HGB) (Continued)

Operating performance of UniCredit Bank GmbH (HVB)

	1/1-31/12/2023	1/1-31/12/2022	Change	
INCOME STATEMENT	**€ millions**	**€ millions**	**€ millions**	**in %**
Interest income	8,440	3,786	4,654	122.9
Current income from equity securities and other variable-yield securities, participating interests, shares in affiliates	245	714	(469)	(65.7)
Income earned under profit-pooling and profit-and-loss transfer agreements	83	32	51	159.4
Interest payable	(6,038)	(1,062)	(4,976)	n/a
Net interest income	2,730	3,470	(740)	(21.3)
Fees and commissions receivable	1,758	1,513	245	16.2
Fees and commissions payable	(366)	(341)	(25)	7.3
Net fees and commissions	1,392	1,172	220	18.8
Net income from the held-for-trading portfolio	1,231	609	622	102.1
Other operating income	388	457	(69)	(15.1)
Other operating expenses	(68)	(491)	423	(86.2)
Other operating income less other operating expenses	320	(34)	354	n/a
OPERATING INCOME	**5,673**	**5,217**	**456**	**8.7**
Wages and salaries	(1,367)	(1,210)	(157)	13.0
Social security costs and expenses for pensions and other employee benefits	(206)	(597)	391	(65.5)
Payroll costs	(1,573)	(1,807)	234	(12.9)
Other administrative expenses	(1,515)	(1,613)	98	(6.1)
of which standard amortisation and depreciation on intangible assets and property, plant and equipment	(51)	(10)	(41)	n/a
General administrative expenses	(3,088)	(3,420)	332	(9.7)
OPERATING RESULT BEFORE PROVISIONS FOR LOSSES ON LOANS AND RECEIVABLES	**2,585**	**1,797**	**788**	**43.9**
Write-downs and impairments of receivables and certain securities as well as allocations to provisions for losses on guarantees and indemnities	(148)	—	(148)	
Income from write-ups of receivables and certain securities as well as from the reversal of provisions for losses on guarantees and indemnities	—	29	(29)	(100.0)
Provisions	(148)	29	(177)	n/a
Write-downs and impairments of participating interests, shares in affiliates and investment securities	(71)	—	(71)	
Income from write-ups of participating interests, shares in affiliates and investment securities	—	13	(13)	(100.0)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(240)	—	(240)	
Expenses from absorbed losses	(119)	(3)	(116)	n/a
Other income less other expenses	(430)	10	(440)	n/a
Extraordinary expenses	—	(14)	14	(100.0)
Extraordinary income	650	1	649	n/a
Extraordinary income/expenses	650	(13)	663	n/a
PROFIT BEFORE TAX	**2,657**	**1,823**	**834**	**45.7**
Tax	(524)	527	(1,051)	n/a
NET INCOME FOR THE YEAR	**2,133**	**2,350**	**(217)**	**(9.2)**
Transfer to the reserve for shares in a controlling or majority interest-holding company	(33)	—	(33)	
Withdrawal from the reserve for shares in a controlling or majority interest-holding company	—	9	(9)	(100.0)
Transfer to other retained earnings	(408)	(1,199)	791	(66.0)
Withdrawal from other retained earnings	33	—	33	
PROFIT AVAILABLE FOR DISTRIBUTION	**1,725**	**1,160**	**565**	**48.7**

n/a – of no informative value or change greater than 200%

Net interest income
At €2,730 million, net interest income generated in the reporting period – interest income less interest payable – including current income from equity securities and other variable-yield securities, participating interests and shares in affiliates as well as income from profit-pooling and profit-and-loss transfer agreements is very significantly lower than the previous-year figure at €3,470 million. The sharply higher interest expenses of €6,038 million (previous year: €1,062 million) were primarily responsible for the decline in net interest income. This is mainly due to the increase in interest rates in the short-term deposit-taking business. Interest income less interest payable declined in the reporting period to €2,402 million (previous year: €2,724 million). In the previous-year period this amount took into account, among other things, the positive effects of the ECB's TLTRO III programme.

Income from profit-and-loss transfer agreements rose in the reporting period to €83 million after €32 million in the previous-year period. Furthermore, the low current income of €245 million (previous year: €714 million) contributed to the decline in net interest income. This was mainly due to the absence of the contribution to earnings from affiliated (real estate) companies as a result of the merger of these companies and HVB.

Net fees and commissions
At €1,392 million in the reporting year, net fees and commissions were very significantly higher than the previous year's level of €1,172 million. This is attributable to the increase in fees and commissions receivable from the other service and lending business, the securities and portfolio business as well as to the income from payments.

Net income from the held-for-trading portfolio
Net income from the held-for-trading portfolio increased very significantly compared with the previous-year period from €609 million to €1,231 million in the reporting period. This was mainly due to income from the rate derivatives business in the areas of fixed income, currencies & commodities as well as equities & credit trading. Key factors driving total income were stable customer demand for hedging transactions on a high level and rising, high market interest rates. A corresponding counter-effect can be seen in net interest income.

Other operating income less other operating expenses
Other operating income less other operating expenses saw a very significant increase from minus €34 million in the previous year to €320 million in the 2023 financial year. This is attributable mainly to the sharply reduced net negative earnings contributions from liabilities from pension obligations: minus €5 million in the reporting period after minus €414 million in the previous-year period. Owing to the relatively stable level of interest rates, plan assets to fulfil liabilities from pension obligations, which are largely based on the interest rate sensitivity of the obligation, developed positively and almost compensated for the expenses from the change in pension obligations. Furthermore, rental and ancillary cost income increased from €6 million to €60 million as a result of the merger of affiliated (real estate) companies with HVB. However, there was a decline in net reversals of and additions to provisions not affecting the lending and securities business (€170 million, previous year: €299 million.

Group Parent Company Information (HGB) (Continued)

General administrative expenses
General administrative expenses were down significantly compared with the previous-year period by €332 million to €3,088 million (previous year: €3,420 million).

This is the result, among other things, of the decline in payroll costs of €234 million to €1,573 million (previous year: €1,807 million). Higher restructuring costs (€233 million) for severance payments or early retirement schemes compared with the previous-year period were compensated by lower expenses for pensions (€381 million).

Furthermore, other administrative expenses decreased by €98 million to €1,515 million (previous year: €1.613 million) also as a result of a lower bank levy (down €62 million), declining expenses for buildings and office space (down €65 million) as well as the restructuring expenses for real estate recorded in the previous year. In addition, expenses in connection with banking operations were reduced further.

This was set against increased expenses for scheduled write-downs on real estate as well as plant and office equipment (up €41 million). These were essentially the result of the merger of affiliated (real estate) companies with HVB in 2023 and the transfer of various properties to HVB.

As part of reorientation of the UniCredit corporate group, further restructuring measures for IT activities/other service areas are planned for the years 2023 and 2024. HVB has assumed pro rata costs for this of €90 million for areas of UniCredit S.p.A. to be restructured, which provide their services almost exclusively for HVB.

Operating result before provisions for losses on loans and receivables
The operating result before provisions for losses on loans and receivables rose sharply year on year by €788 million to €2,585 million. This development is due to sharp increases in net income from the held-for-trading portfolio, other operating income less other operating expenses and the decline in general administrative expenses.

This results in a very significantly lower cost-income ratio (ratio of general administrative expenses to operating income) of 54.4% after 65.6% in the previous-year period.

Provisions for losses on loans and receivables
Provisions for losses on loans and receivables amounted to minus €148 million in the reporting period (previous year: positive balance of €29 million). The net measurement loss on lending operations contained in provisions for losses on loans and receivables amounted to €166 million (previous year: net measurement gain of €322 million).

In the 2023 financial year, a net amount of €111 million in general loan loss revisions (GLLP) was reversed. The models used to calculate expected credit losses generally reflect effects from the adjustment of macroeconomic factors. In addition, overlays were applied for certain sub-portfolios that are particularly sensitive to certain risks. These overlays are to be considered supplementary measures to the expected loss models. On the one hand, these risks are geopolitical risks caused by the sudden increase in energy costs, inflation and interest rates for both companies and private individuals. On the other hand, these are risks that have arisen especially in the commercial real estate and construction industry (CRE) as a result of the persistently high level of interest rates. Both overlays largely offset each other since the geopolitical overlay results in a reversal (or a change to specific loan loss provisions) and the CRE overlay in an addition.

Changes in methodology are a further factor for the reversal of a general loan loss provision which was entered in 2022 as a post-model adjustment for products for which the (entire) repayment is made shortly before the maturity of the financing and was reversed in 2023. Contrary to expectations, detailed model implementation enabled a lower loan loss provision to be calculated. There was a reversal also due to the adjustment made to the probability of default (PD) parameters of the acquisition and leveraged finance model stemming from a time series expansion. There was also an addition due to a post model adjustment to an imminent update to the loss-given default model. In view of the macroeconomic situation, updated forward-looking macroeconomic scenarios (marginally lower growth rates in the gross domestic product for 2024, 2025 and 2026 and the lower house price index) resulted in additions to general loan loss provisions. Please refer to the Note “Impairment of financial assets” for further information.

In the reporting period, net additions to specific loan loss provisions total €316 million after net additions of €59 million in the previous-year period. Additions to specific loan loss provisions on account of defaults were partially compensated by reversals of existing specific loan loss provisions. The specific loan loss provision requirement for the direct Russia exposure in connection with the Russia-Ukraine conflict remained on a relatively moderate level in the reporting year.

A net gain of €18 million was generated with securities held for liquidity purposes in the reporting year after a net loss of €293 million the previous year.

Other income less other expenses
Other income less other expenses fell very significantly in the 2023 financial year from €10 million in the prior-year period to minus €430 million in the reporting period.

Various properties were transferred to HVB as part of the merger of affiliated (real estate) companies with HVB in 2023. Impairment losses on property, plant and equipment totalled €240 million in the reporting period, mainly as a result of the negative market development of real estate.

In addition, a net amount of minus €119 million was recognised from loss transfers, which are mainly attributable to affiliated companies of HVB and its subsidiaries. Amortisation and depreciation on participating interests, shares in affiliates and securities treated as fixed assets amounted to minus €71 million in the reporting period. The expense is the result of losses on the sale of securities (minus €52 million) and the write-down of the carrying amount of an affiliated company in the amount of €18 million.

Extraordinary income/expenses
Extraordinary income/expenses of €650 million in the reporting period is the result of the gains generated on the merger of affiliated (real estate) companies with HVB. Extraordinary income/expenses amounted to minus €13 million in the previous-year period and were attributable to a merger loss.

Group Parent Company Information (HGB) (Continued)

Profit before tax
At €2,657 million, profit before tax increased sharply compared with the previous-year profit of €1,823 million. This is largely due to the very significant rise compared to the previous-year period in net income from the held-for-trading portfolio, significantly lower general administrative expenses and the sharp increase in the "Extraordinary income/expenses" item as a result of the gains generated on the merger of affiliated (real estate) companies with HVB.

Tax
There was tax expense of €524 million in the 2023 financial year (previous-year period: tax income of €527 million). This is attributable to the positive earnings trend in the reporting period. The tax expense in the reporting period includes income from previous years totalling €315 million (in particular as a result of the revaluation of tax risks).

The tax income for 2022 included tax income of €1,190 million owing to the first-time exercise of the capitalisation option for deferred tax assets, which more than compensated for current tax expense in the previous-year period.

Net income for the year and appropriation of profit
In the 2023 financial year, the profit available for distribution disclosed in the annual financial statements of HVB, which forms the basis for the appropriation of profit, amounts to €1,725 million. This consists of the net income for the year of €2,133 million generated in the reporting year less the amount of €408 million transferred to other retained earnings. We will propose to the Shareholders' Meeting that the profit available for distribution of €1,725 million be paid to UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a profit distribution of around €2.15 per share after a dividend of around €1.45 per share for the 2022 financial year. The profit available for distribution of €1,160 million reported in the previous year was distributed to UniCredit S.p.A. on 30 March 2023 in accordance with a resolution adopted by the Shareholders' Meeting on 27 March 2023.

Financial position

Total assets
HVB's total assets amounted to €272.9 billion as at 31 December 2023. This represents a significant decline of €38.8 billion compared with year-end 2022.

At €2.3 billion, the "Cash and cash balances" item is virtually unchanged compared with 31 December 2022. Within this total, the balances with central banks amounted to €1.9 billion (year-end 2022: €1.8 billion). Cash on hand came to €0.4 billion (year-end 2022: €0.5 billion).

Loans and receivables with banks fell sharply by €18 billion to €31.3 billion compared with year-end 2022. The main reason for this is the decrease in overnight deposits (down €13.5 billion) under the deposit facility of the Deutsche Bundesbank, which is largely attributable to the repayment of TLTRO III funds in 2023.

Loans and receivables with customers also declined by €6.2 billion to €121.3 billion. Among other things, the main factors for this were declines in the volume of bank loans (€2.4 billion) and of €1.6 billion in fixed-term deposits.

The holdings disclosed under securities (without held-for-trading portfolios) increased by €4.3 billion to €63.3 billion as at the reporting date. There were increases in both own bonds (up €1.2 billion) and third-party bonds (up €3.8 billion).

At €49.4 billion, financial assets held for trading were sharply lower than the level of €68.7 billion at year-end 2022. This decline is due in large part to the €5.3 billion decrease in derivative financial instruments and the €14.4 billion decrease in CO2 emissions rights.

Compared with year-end 2022, the shareholdings disclosed under participating interests and shares in affiliates fell by €0.8 billion to €0.7 billion, primarily due to the merger of affiliated (real estate) companies with HVB.

In the 2023 reporting year, property, plant and equipment was up by €1.5 billion to €1.6 billion. This rise is due to the merger of affiliated (real estate) companies with HVB and the associated transfer of the property portfolio.

There was a decrease in volumes on the liabilities side in line with the development on the assets side. The change in deposits from banks (down €16.2 billion to €30.7 billion) is mainly the result of the partial repayment of loans under the TLTRO III programme of €14.9 billion.

Deposits from customers were down by €7.1 billion to €144.6 billion. This decline is primarily attributable to decreases of €5.0 billion in savings deposits and €25.1 billion in demand deposits from current customer accounts. This is offset by increases of €12.7 billion in fixed-term deposits and €8.8 billion in call money.

Debt securities in issue rose by €3.7 billion to €34.9 billion as a result of new issues.

There was a very significant decline in liabilities held for trading (down €20.2 billion to €26.8 billion). Within this total, €14.9 billion relates to CO2 emission rights, €5.1 billion to derivative financial instruments and €0.4 billion to securities holdings. In contrast, the volume of repurchase transactions rose by €0.1 billion.

At €3.7 billion, the “Provisions” item matched the level recorded in the previous year.

Shareholders’ equity increased by €1.0 billion to €16.6 billion compared with year-end 2022. The dividend payout of €1.2 billion for the previous year is offset by net income for the year of €2.3 billion in 2023. The subscribed capital and the additional paid-in capital remained unchanged compared with the previous year.

The return on assets is defined in Section 26a KWG as the ratio of net profit to total assets. This amounted to 0.782% as at 31 December 2023 (31 December 2022: 0.754%).

Contingent liabilities and other commitments not recognised in the balance sheet increased slightly to €99.0 billion (year-end 2022: €98.1 billion). This figure includes contingent liabilities (€29.7 billion) from general loan guarantees (€0.8 billion), transaction-related guarantees (€27.1 billion) and trading-related guarantees (€1.8 billion). Other commitments of €69.4 billion (year-end 2022: €68.6 billion) consist solely of irrevocable lending commitments.

Group Parent Company Information (HGB) (Continued)

Risk-weighted assets, key capital ratios, leverage ratio and liquidity ratios of HVB
The total risk-weighted assets of HVB (including market risk and operational risk) determined in accordance with the Capital Requirements Regulation II (Kapitaladäquanzverordnung – CRR II) amounted to €70.2 billion as at 31 December 2023 and were thus €10.3 billion lower than at year-end 2022. This is mainly due to the risk-weighted assets for credit risk (including counterparty default risk) that recorded a decline of €6.8 billion to €57.9 billion. The risk-weighted assets for market risk were down by €3.5 billion to €4.1 billion while risk-weighted asset equivalents for operational risk remained stable at €8.2 billion. As at 31 December 2023, the total risk-weighted assets of HVB in accordance with HGB are for the first time higher than the total risk-weighted assets of HVB Group in accordance with IFRS. On the one hand, this is due to the merger of affiliated real estate companies including the properties held by these companies with HVB. On the other hand, it must be taken into account that HVB's regulatory stand-alone report must show data before consolidation.

Common Equity Tier 1 capital compliant with CRR II excluding hybrid capital (CET1 capital) amounted to €15.0 billion as at 31 December 2023, while Tier 1 capital of HVB came to €16.7 billion. These figures rose as compared with 31 December 2022 (€14.7 billion and €16.4 billion respectively). The CET1 capital ratio (ratio of Common Equity Tier 1 capital to the total amount of credit risk-weighted assets and risk-weighted asset equivalents for market risk and operational risk) and the Tier 1 capital ratio under CRR II (including market risk and operational risk) amounted to 21.4% and 23.8% respectively as at 31 December 2023 in accordance with approved financial statements (31 December 2022: 18.2% and 20.3% respectively). This rise is attributable to an increase in capital and a decline in risk-weighted assets. Own funds totalled €18.1 billion as at 31 December 2023 (31 December 2022: €17.8 billion in accordance with approved financial statements). The own funds ratio was 25.8% as at 31 December 2023 (31 December 2022: 22.1% in accordance with approved financial statements).

The leverage ratio of HVB was 5.1% as at 31 December 2023 (31 December 2022: 4.5% in accordance with approved financial statements) and is higher than the minimum requirement of 3.0%.

The liquidity coverage ratio (LCR) is calculated as the ratio of high-quality liquid assets to total net cash flows. HVB's LCR amounted to 148% on a twelve-month average as at 31 December 2023 (31 December 2022: 142%). The required LCR of a minimum of 100% to ensure that an institution is able to meet its short-term payment obligations was also consistently observed in the course of 2023 at the level of the combined liquidity sub-group consisting of HVB and UniCredit Leasing Finance GmbH.

The net stable funding ratio (NSFR) is calculated as the ratio of the amount of available stable funding to the amount of required stable funding. HVB's NSFR amounts to 118.5% as at 31 December 2023 (31 December 2022: 115.6%). The valid NSFR requirement of a minimum of 100% to ensure the availability of a reasonable share of stable funding was consistently met in the course of 2023.

Forecast Report/Outlook

The Combined Management Report and the rest of the Annual Report include statements, expectations and forecasts also concerning the future. These statements, expectations and forecasts are based on plans and estimates that are supported by the information available to us at the present time. We assume no obligation to update these statements in the light of new information or future events. Forward-looking statements may entail known or unknown risks and uncertainties and the actual results and developments may thus differ significantly from those expected at present. Such discrepancies may result particularly from changes to the general economic situation and the competitive situation, developments on international capital markets, the possible default of borrowers or contracting parties in commercial transactions, the implementation of restructuring measures, amendments to national and international legislation relating in particular to supervisory and tax regulations, the reliability of our risk-management procedures and methods as well as other risks, some of which are described in detail in the Risk Report.

However, past experience has shown that there is a greater fluctuation range in the percentage changes particularly in smaller amounts in the items of the income statement. As a result, statements have frequently been made in relation to these smaller items that indicate a very significant increase or decline. On the whole, such a description of the intensity overstates how relevant these are for the operating performance of HVB Group. To improve the transparency and informative value of the Management Report, HVB Group has decided to adjust the definitions of the adjectives used to describe intensity. These new terms applied to describe intensity are initially only used for the forecast for 2024 while the previous descriptions are retained in presenting the performance in the 2023 financial year in order to ensure comparability with the forecast for 2023 set out in the 2022 Annual Report.

To describe the intensity of changes more appropriately, the following adjectives are now used: “virtually unchanged”, “moderate”, “noticeable” and “significant”. To date, the adjectives “slight, “noticeable” or “marked”, “significant”, “very significant” and “sharp” have been used. The ranges used to describe the changes remain unchanged. The strongest change is thus described as “significant”; “very significant” or “sharp” are no longer used.

General economic outlook

After global GDP growth of 3.1% in 2023, the global economy is likely to cool somewhat in 2024 before picking up at a moderate pace again in 2025. HVB Group is assuming growth of 2.7% in 2024 followed by 3.0% in 2025 (*The UniCredit Macro & Markets Outlook: Central banks’ pivot set to support market sentiment, published on 23 November 2023*). The moderate slowdown in the global economy in 2024 is indicated by the still significantly higher interest rates as a result of the tightening carried out by central banks such as the Fed and the ECB, which are only likely to show their full dampening impact with a time lag. In addition, the surplus savings accumulated by private households during the pandemic have been used up for the most part in the eurozone, while they have been significantly reduced in the USA. Moreover, there is a less expansionary fiscal policy in industrialised countries. In China, the weak economy is set to continue as the situation on the property market is likely to remain difficult. From a fundamental perspective, however, there is only a small risk of a hard landing of the global economy in 2024. On the one hand, further declines in inflation rates are expected to reduce the drag on purchasing power for private households and companies. On the other hand, the cushion from low debt levels in the private sector in many industrialised countries and comparatively robust labour markets are likely to prevent an even stronger slowdown in the economy. However, the tense geopolitical situation is increasing risks for the global economy. For example, abrupt price swings on financial and commodities markets coupled with a persistently high level of uncertainty due to geopolitical events could weigh on the global economy.

Forecast Report/Outlook (Continued)

HVB Group expects that the US economy will not be able to maintain the pace of growth it saw in 2023 (2.5%) and will only pick up moderately by 1.0% in 2024 and 2025 respectively. Firstly, the full effect of significantly higher key interest rates and the associated stricter lending conditions for companies and private households will only be felt in the US economy after a time lag. Secondly, private consumption is likely to lose momentum. The remaining surplus savings are held for the most part by the wealthier section of the population and are thus less likely to boost private consumer spending due to the lower propensity to spend. The savings rate, which in 2023 was temporarily less than half the level before the pandemic, will presumably increase as the labour market is likely to continue to weaken moderately with private households becoming more cautious. From the second quarter of 2024, HVB Group expects interest rate cuts by the US Federal Reserve, which are likely to total 125 basis points by year-end 2024 (*The UniCredit Macro & Markets Outlook: Central banks' pivot set to support market sentiment, published on 23 November 2023*).

The development of the real estate market is expected to remain weak and the population will presumably decline further, most likely contributing to China's growth remaining rather bumpy and subdued by historical standards. After growth of 5.2% in 2023, HVB Group expects growth of 4.5% in 2024, followed by 4.3% in 2025 (*The UniCredit Macro & Markets Outlook: Central banks' pivot set to support market sentiment, published on 23 November 2023*).

For the eurozone, HVB Group anticipates slight growth of 0.5% for 2024 followed by a moderate recovery with GDP growth of 1.2% in 2025 (*The UniCredit Macro & Markets Outlook: Central banks' pivot set to support market sentiment, published on 23 November 2023*). The inflation rate is expected to average 2.2% in 2024 and 1.8% in 2025 after 5.4% in 2023. The ECB is likely to gradually lower the key interest rates from the second quarter of 2024 so that the interest rate cuts are likely to total 75 basis points by year-end 2024 (*The UniCredit Macro & Markets Weekly: Fed in no hurry to cut rates, published on 26 January 2024*).

At country level in the eurozone, HVB Group expects slight growth of 0.4% in GDP in Germany in 2024 (2025: 1.3%). By contrast, economic performance in the other larger countries of the eurozone should develop better in 2024. For France, HVB Group expects growth of 0.8% (2025: 1.1%) and for Italy, growth of 0.6% (2025: 1.1%, *The UniCredit Macro & Markets Outlook: Central banks' pivot set to support market sentiment, published on 23 November 2023).*

A slight economic recovery in Germany is suggested by the fact that the reduction of high inventories in the manufacturing and retail sectors is likely to come to an end. As inflation is also expected to fall further, it will be less of a drag on the purchasing power of private households. However, a more restrictive course in fiscal policy might dampen the economy in 2024. In addition, the sharp decline in building permits, especially in residential construction, is expected to have a negative impact on construction activity after order backlogs were increasingly reduced by construction companies. Consumer prices are expected to rise by a 2.5% on average in 2024 and by 1.7% in 2025 (2023: 5.9%, *The UniCredit Macro & Markets Weekly: Earnings season a litmus test for risk appetite, published on 12 January 2024*).

Banking sector development in 2024

In the second half of 2023, the high level of inflation in the USA and Europe fell significantly and after September, the European Central Bank did not raise interest rates any further. However, economic momentum remained subdued in Germany in particular. At the same time, the fundamental indicators for the European banking sector are still very good. In particular, net interest income in the European banking sector saw a significantly favourable development in 2023, while credit risk costs were maintained at a moderate level.

The trend on the income side in the banking sector remained extremely dynamic in the first half of 2023. The ECB deposit rate rose by 2.0 percentage points in 2023, whereas the interest rate on sight deposits from businesses rose by only 0.65 percentage points and on sight deposits from households by only 0.30 percentage points in 2023. The significant improvement on the income side combined with cost control and only low risk costs led to a significant increase in profitability. The return on equity of European banks stood at 10.7% in the first nine months of 2023 compared with 7.6% in 2022 and less than 4% in the period from 2009 to 2022 (*European Banking Authority*). Due to expected interest rate cuts by the ECB in 2024 and another subsequent adjustment of deposit rates, a decline in net interest income is expected. Nevertheless, the consensus estimate for the return on equity of European banks in 2024 is more than 11%.

On the structural side, the profitability of European banks continues to improve, which bolsters the profit outlook for 2024. Firstly, an acceleration in digital customer interaction was seen as a result of the COVID-19 pandemic, enabling a further structural adjustment of branch networks. Secondly, there were a number of national bank mergers primarily in Spain and Italy, which is likely to additionally boost profitability in the sector in the medium term. There was also a merger between the two largest banks in Switzerland. The consolidation in the banking sector continued in Germany too. By the end of November 2023, the number of banks reporting to the Deutsche Bundesbank fell by 4.0% to 1,334 compared with the previous year (*Deutsche Bundesbank*). It is to be assumed that the process of consolidation among European banks will continue, although still focusing on domestic consolidation instead of large cross-border mergers. Moreover, the trend towards streamlining and focusing banks' business models continues, with a concentration on core areas and markets in strong competitive positions generating correspondingly higher margins. On the costs side, most banks are also continuing to adapt their office space to the new hybrid working environment, enabling a further optimisation of the cost structure.

The liquidity position of the banking sector remained very good despite TLTRO III repayments. At the end of September 2023, the average liquidity coverage ratio (LCR) was 160.7% and the net stable funding ratio (NSFR) 126%, meaning that both liquidity ratios were considerably higher than the regulatory minimum requirements of 100%. The surplus liquidity of European banks declined further in 2023 and stood at €3.5 trillion as at 6 February 2024. In October 2022, the ECB decided to adjust the conditions for TLTRO III operations. As a result, banks prematurely repaid a large amount of the TLTRO III funds and a further €477 billion in TLTRO III operations were due at the end of June. As at year-end 2023, only €392 billion in TLTRO III funds were still outstanding compared with the original €2.2 trillion that was drawn down. The large repayment of TLTRO III funds in 2023 totalling almost €900 billion went smoothly and the banking sector had a long time to prepare for the repayments. This also explains, among other things, the high volume of covered bonds issued in 2022 and 2023. In 2024, the remaining TLTRO-III funds will finally fall due, as a result of which excess liquidity will decline further but still remain at a historically high level.

Forecast Report/Outlook (Continued)

As regards customer deposits, private customer deposits at banks in Europe increased slightly in 2023, whereas deposits from the corporate sector declined by 0.5%. However, there were considerable differences between individual countries. While deposits in Spain, Italy and France declined more significantly, a slight increase in deposits was seen in Germany (European Central Bank). On the whole, banks' refinancing in 2023 was very stable despite the crisis at some regional banks in the USA and the problems encountered by a large Swiss bank. This, in turn, highlights the stability of the European banking sector. Volatility is still to be expected in the US regional banking sector in 2024 as almost a third of the US regional bank loans involve commercial property financing and further loan defaults are likely.

The risk costs of European banks amounted to 0.45% of the loans outstanding in the first three quarters of 2023, which is well below the average of 0.54% over the past five years. The relative volume of non-performing loans remained constant at 1.8% of the loans outstanding loans in 2023 compared with year-end 2022. The proportion of loans showing a significant increase in credit risk and classified at Level 2 according to IFRS9 also decreased to 9.2% as at 30 September 2023 compared with 9.4% at year-end 2022. The high proportion of Level 2 loans shows that the asset quality of European banks is expected to develop moderately negatively in 2024, but to a manageable extent due to the availability of risk provisions and the significant improvement in profitability in the banking sector (*European Banking Authority).* The banks themselves anticipate slightly higher risk costs in 2024 according to the information provided in quarterly reports for the fourth quarter of 2023. The focus is currently primarily on commercial property financing, which accounts for 6.8% of the outstanding loans in the European banking sector.

Banks' capital base remains at a high level. At the end of September 2023, the average CET1 capital ratio of European banks stood at 15.8% (on a fully loaded basis, EBA data). This more than met the regulatory minimum requirements, which are 9.8% for 2024 on average for banks supervised by the ECB. Over the course of 2024, the minimum capital requirements will increase, particularly as a result of the increase in the countercyclical capital buffer in several countries. This will narrow the gap to the minimum capital requirements for banks somewhat but banks will continue to significantly exceed the capital requirements on average. The average CET1 capital ratio in the banking sector increased by 0.4 percentage points in the first three quarters of 2023, despite a greater focus on dividends and share buybacks. This increase in capitalisation was mainly due to the high level of retained earnings while risk-weighted assets remained constant (European Banking Authority).

To summarise, the banking sector in Europe is in good shape and is well prepared for an economic slowdown and a possible increase in defaulting loans. The momentum driven by the increase in net interest income is highly likely to abate in 2024 as the European Central Bank is expected to make the first interest rate cuts. However, profitability will continue to be supported by higher interest rates in the medium term and a return to negative interest as seen from 2014 to 2022 is currently unlikely. Despite this, banks will need to continue making further structural adjustments, such as digitalising their business processes, adjusting branch networks and consolidating further in the banking sector.

On the regulatory side, the centre of attention in 2024 will be on the transition to the finalised Basel III rules applicable from 1 January 2025. In addition, banks must disclose their green asset ratio (GAR) as a new taxonomy and key figure for the first time in 2024. In 2024, the European Central Bank will also carry out a stress test on banks directly supervised by it for cyber resilience, the results of which are to be presented in the summer. In this context, the focus will not be on whether banks can prevent a cyber attack but how they respond to an attack and restore their business operations.

Development of HVB Group

We are continuing to follow the guidelines of our UniCredit Unlocked strategic plan embedded in the group-wide strategic plan. The following statements on future development are based on the corporate planning of HVB Group and thus on the rules governing the segmented income statement.

Based on the corporate planning adopted in November 2023 for the 2024 financial year, we expect HVB Group to generate significantly higher profit before tax and after tax in the 2024 financial year compared with 2023 despite the still challenging macroeconomic and geopolitical environment (increased inflation and Russia-Ukraine conflict, among other things).

Owing to the decline in interest rates on average, we expect a noticeable decrease in net interest compared with 2023. In the event of a deviating development of macroeconomic parameters, we expect a sensitivity of approx. minus €30 million per 25 basis points for our net interest.

By contrast, significant increases are expected in net fees and commissions and net trading income compared with the previous-year period. This growth can be achieved through higher commission income from the securities business as a result of a robust or slight increase in capital markets, active capital market operations of corporate customers in open markets and a good investment climate coupled with a return of demand in the lending business partly due to political clarity regarding the road to decarbonisation.

Overall, we expect a moderate rise in operating income compared with 2023.

Thanks to the consistent implementation of the UniCredit Unlocked strategic plan and efficient cost management, we anticipate a moderate decline in operating costs in the 2024 financial year compared with 2023.

Compared with 2023, we expect a moderate improvement in the cost-income ratio in 2024.

After the high costs in previous years, we anticipate net write-downs of loans and provisions for guarantees and commitments to return to normal. For the 2024 financial year, we expect a significant decline in new net write-downs of loans and provisions to be recognised compared with the previous-year period.

With regard to provisions for risks and charges, we expect a significant decline compared with 2023, in particular due to a lower bank levy.

For the RoAC, we anticipate a significant improvement in 2024 compared with the previous year.

In the Corporates operating segment, we expect profit after tax to remain virtually unchanged compared with the 2023 financial year with a moderate improvement in both the RoAC and the cost-income ratio. The Retail operating segment is expected to see a significant improvement in profit after tax in the 2024 financial year, partly due to the expected elimination of negative one-off effects in 2023. This applies likewise to the RoAC while the cost-income ratio is likely to improve noticeably. For the Other business area, we expect a significant decline in profit after tax in 2024 compared with the previous-year period. This business area is expected to see a significant decline in the RoAC with a significant increase in the cost-income ratio.

Forecast Report/Outlook (Continued)

For the 2024 financial year, we anticipate a solid capital base for HVB Group with a CET1 capital ratio that is virtually unchanged compared with the figure in 2023.

UniCredit is striving to simplify the structure of its trading activities. While the trading activities of the UniCredit corporate group are currently bundled at HVB, these will be gradually transferred to UniCredit S.p.A. beginning in the second half of 2024. HVB Group is expected to benefit from the positive impact this will have in future on profitability, capital ratios and leverage ratio and, at the same time, see a reduction in risks, profit volatilities and complexity. The transfer of a first tranche of trading activities is planned for the first half of 2024; the timing depends on customer approval and IT migration. The purchase agreement was signed at the end of December 2023. The planned transfer of the first tranche in the second half of 2024 will not change the expectations described above of a significant increase in HVB Group's profit after tax, cost-income ratio and RoAC for the 2024 forecast year compared with 2023.

Opportunities in terms of future business policy and corporate strategy, performance and other opportunities

The opportunities described below are offset by risks, such as the geopolitical tensions between Russia and Ukraine, the Middle East conflict and strategic competition between the USA and China, which can restrict the exploitation of those opportunities and plans. The risks arising from the business policy and corporate strategy are described in the Risk Report.

As a universal bank, HVB Group is a member of one of the largest banking groups in Europe, UniCredit. HVB Group is one of the largest private financial institutions in Germany and operates in a domestic market which is the largest in the whole of Europe in terms of economic power and size of population. Moreover, Germany is one of the few countries in the world that continues to enjoy a financial rating of AAA. All in all, HVB Group can thus exploit its regional orientation combined with the network of a large European banking group covering four core regions.

Overall, there are a number of opportunities:

HVB Group's objective in accelerating the implementation of the UniCredit Unlocked strategic plan is to increase profitability and capital efficiency. Its main focus is on growth in selected customer segments to increase the market share combined with an efficient service model and the creation of a unique customer experience. We will therefore be investing in automation and front-to-back process optimisation in the coming years. We are also forging ahead with a holistic approach to sustainability in accordance with the ESG principles.

We are continuing to make use of resources and opportunities to cooperate within UniCredit across country and company lines. In this context UniCredit is striving to simplify the structure of its trading activities. While the trading activities of the UniCredit corporate group are currently bundled at HVB, these will be gradually transferred to UniCredit S.p.A. beginning in the second half of 2024. HVB Group will benefit from the positive impact this will have on profitability, capital ratios and leverage ratio in future.

HVB Group has opportunities to recruit highly qualified employees and managers. Both the size of UniCredit and the strategic positioning of HVB Group have a beneficial impact on the recruitment of employees and managers. Promoting female managers at junior level is an explicit and essential component of our business strategy. Our corporate culture is based on a clearly defined system of values consisting of integrity, ownership and caring.

On account of its capital base, HVB Group is, in our opinion, already well prepared for the upcoming regulatory requirements and can take advantage of the growth opportunities that arise in the market.

The opportunities for the individual operating segments are as follows:

In the **Retail** operating segment, we are continuing to pursue our growth strategy. In Wealth Management and Private Banking, we intend to establish ourselves as one of Germany's leading providers in the coming years while further accelerating our growth path with high net worth individuals. Supported by our positioning as a quality provider, we are thus concentrating on growth and on increasing customer loyalty. We will also continue to fundamentally modernise the Private Clients Bank by enhancing our smart banking service model.

The **Corporates** operating segment is continuing to seek profitable, capital-efficient growth and an expansion of market shares in its corporate banking business through a high level of market penetration, its positioning as a principal or core bank and the acquisition of new customers. As a strategic partner, Corporates provides in-depth support for the entrepreneurial activities of its customers. Among other things, the most important challenges for customers include the topic of sustainability and digitalisation alongside the current geopolitical and macroeconomic uncertainties. For this reason, the growth initiatives of the Corporates operating segment are geared to these customer requirements. In addition, we will continue to forge ahead with the digital expansion of our processes and product solutions.

The operating segments benefit from the Client Solutions product unit. This unit underpins its commitment to quality in the customer business by focusing on a further exploitation of cross-selling potential through product solutions, such as intensifying the international payments and working capital business, as well as the close cooperation with Corporates with improved access to investment banking products and products with low capital commitment for retail customers.

Risk Report

HVB Group as a risk-taking entity

By their very nature, the business activities of HVB Group are subject to risk. HVB Group defines risk as the danger of suffering losses on account of internal or external factors. In the course of our business activities, risks are identified, quantified, assessed, monitored and actively managed. We therefore regard it as one of our core duties to apply these considerations in order to integrate risk-management, risk-controlling and risk-monitoring processes in all operating segments and functions of our Group. These activities are the precondition for providing adequate capital backing and maintaining an adequate liquidity base.

All HVB Group companies that are included in the consolidated financial statements of HVB Group prepared in accordance with International Financial Reporting Standards (IFRS) are incorporated in the risk management programme of HVB Group. As part of the Internal Capital Adequacy Assessment Process (ICAAP), these Group companies are classified into the categories “large”, “medium”, “small plus” and “small” by applying various criteria such as market position, scope of business activities and complexity of the risk profile or portfolio structure. With the exception of the Group companies classified as “small”, which are subject to a simplified approach to risk measurement, the economic capital is measured differently for the individual risk types. Within the framework of the ICAAP, the Bank differentiates between the two perspectives required by the regulatory authorities to ensure capital adequacy, the normative and the economic perspective. In the economic perspective, all risks that can lead to economic losses are covered by the internal capital, which is calculated on the basis of internal processes and methods. This is the basis for the risk-taking capacity as a measure used by HVB Group for economic capital adequacy. In the normative perspective, capital adequacy is additionally ensured by means of multi-year capital planning.

Risk types

Credit risk is defined as the potential losses arising in the value of a credit exposure due to an unexpected change in credit quality of a contracting party (borrower / financial investment / small legal entity, counterparty, issuer or country). This potential loss may be brought about either by a default by the borrower who is thus no longer in a position or willing to meet its contractual obligations in full, or its rating has been downgraded as a result of a deterioration in its credit quality.

Market risk is defined as the risk of incurring losses on positions held on and off the balance sheet in the trading or investment books as a result of unfavourable changes in the market value of securities or financial derivatives. The most relevant of these market prices are interest rates (used to determine and discount cash flows), share prices, credit spreads (including, but not limited to, changes in these spreads due to credit defaults or rating changes), spot exchange rates, commodity prices and derived prices such as volatilities and correlations between these parameters. Market risk also includes the behavioural model risk, which represents the statistical uncertainty involved in the model assumptions for sight and savings deposits as well as the early repayment of mortgage loans.

Liquidity risk is defined as the risk that HVB Group will not be able to meet its payment obligations as they fall due without incurring unacceptable losses.

In line with the Capital Requirements Regulation (CRR), HVB Group defines **operational risk** as the risk of losses resulting from inadequate or deficient internal processes and systems, human error or external events. This definition includes legal risk but excludes strategic and reputational risk.

These risk types are described in detail in the section entitled “Risk types in detail”. All other risk types of HVB Group are summarised in the section entitled “Other risks”, which is presented in an abridged form.

The following risk types are summarised as other risks:
– **Real estate risk** covers potential losses resulting from fluctuations in the market value of the Bank’s own real estate portfolio. This comprises the real estate owned by Group companies (owned or leased in accordance with IFRS 16), real estate holding companies and special purpose vehicles. No land or properties are included that are held as collateral. These are included under credit risk.
– **Business risk** is defined as a measure of the gap between unexpected disadvantageous changes in the Bank’s future earnings and expected changes over a one-year risk horizon. Business risk can result above all from a serious deterioration in the market environment, changes in the competitive situation or customer behaviour but also from changes in the cost structure.
– **Pension risk** can occur on both the assets side and the liabilities side (pension commitments). This may be caused by a decline in the fair value of plan assets on the assets side due to disadvantageous changes in market prices as well as an increase in the obligations on the liabilities side, due for instance to a reduction in the discount rate. Furthermore, there are actuarial risks such as longevity risk (changes to the mortality tables) on the obligation side. In this context, pension risk is the risk that the pension provider will have to provide additional capital to service the vested pension commitments.
– **Financial investment risk** covers potential losses arising from fluctuations in the measurement of HVB Group’s equity interests. HVB Group’s financial investment risk stems from the occurrence of losses in equity provided in connection with a financial investment in other companies that are not consolidated in HVB or included in market risk. Financial investment risk is accounted for in the risk analysis via credit risk and market risk.
– **Strategic risk** results from management either not recognising early enough or not correctly assessing significant developments or trends in the Bank’s environment. As a result, fundamental management decisions could, in retrospect, prove to be disadvantageous in terms of the achievement of the Bank’s long-term goals. In addition, some decisions may be difficult to reverse or not be able to be reversed directly. In the worst case, this can negatively impact the profitability and risk profile of HVB Group.
– **Reputational risk** is defined as the risk of negative effects on the income statement caused by adverse reactions by stakeholders due to a changed perception of the Bank. This changed perception may be triggered by a primary risk such as credit risk, market risk, operational risk, liquidity risk, business risk, strategic risk or independently of any triggering primary risk.

– **Model risk** defines the risk of model weaknesses due to data errors, incorrect assumptions or incorrect methodology within the scope of the ICAAP calculations. It thus refers to the possibility of the economic capital being estimated incorrectly. For this reason, a model risk charge is added to the aggregated economic capital for the established risk types.

– **Sustainability risk** defines risks with any financial impact arising from the current or future influence of sustainability factors on its counterparties (e.g. borrowers, customers or issuers) or invested assets (especially risks arising from the core activities of HVB Group). Sustainability factors are environmental, social or corporate governance issues that could have a negative impact on the balance sheet, earnings or liquidity position of HVB Group. Sustainability risk is not currently a standalone risk type, but is being successively integrated into relevant risk types.

Integrated overall bank management

Risk management

HVB Group's risk management programme is built around the business strategy adopted by HVB's Executive Board, the Bank's risk appetite and the corresponding risk strategy.

The risk-taking capacity upon achievement of the set targets is assessed on the basis of the risk strategy and the business and risk plans, using the available risk coverage potential. At the same time, limits are defined in the planning process to ensure that the risk-taking capacity is maintained.

Pursuant to the Minimum Requirements for Risk Management (Mindestanforderungen an das Risikomanagement - MaRisk), multi-year budgeting is performed in relation to the internal capital. This involves analysing the relevant risk types over a time horizon of at least three years and taking into account a deteriorating macroeconomic environment. Two scenarios with negative consequences are examined independently of each other to permit an assessment of the effect of a deteriorating macroeconomic business environment. In the planning process for 2023, these planning scenarios, referred to as adverse scenarios, have been derived against the backdrop of macroeconomic developments (scenario 1) and additional non-macroeconomically motivated drivers (scenario 2). Whereas the first scenario compared to the base scenario assumes a continued rise in inflation in 2023 and a smaller decline in 2024 coupled with a recession and lower market interest rates in most euro countries, the second scenario takes account of further effects, such as a reduction in the new business margin in the lending business and a general deterioration in HVB's credit portfolio, in addition to the factors underlying scenario 1. Since the risk coverage potential is considered with the same scenarios, it is possible to make a statement about how the risk-taking capacity will evolve overall over three years, taking into account the macroeconomic scenarios.

Implementation of the risk strategy is a task for the Bank as a whole and is essentially carried out by the Chief Risk Officer (CRO) organisation. The CRO organisation is responsible for risk management and risk policy guidelines set by the Executive Board. The CRO reports on a regular basis to the Executive Board and the Risk Committee of the Supervisory Board on the Group's risk situation.

New releases and updates to instructions, policies and the risk strategy are communicated through the Bank's internal information system.

Separation of functions

In addition to Bank-wide risk management, integrated overall bank management is accompanied by comprehensive risk controlling and risk monitoring that are functionally and organisationally independent in accordance with the MaRisk rules.

Risk controlling

Risk controlling is defined as the operational implementation of the risk strategy. Credit Risk Operations (CRP) is responsible for the operational management of credit risk for the operating segments. The credit specialists take lending decisions in the defined "risk-relevant business". They thus make it possible for the operating segments to take on risk positions in a deliberate and controlled manner within the framework of the risk strategy and to evaluate whether it is profitable to do so from the overall perspective of the customer relationship and on the basis of risk-return considerations. In the "non-risk-relevant business", the operating segments are authorised to take their own lending decisions under conditions set by the CRO organisation. The Financial Risk (CMR) unit is responsible for monitoring the implementation of the market risk strategy and the ALM & Funding unit within the Finance organisation for controlling liquidity risk. The Non-Financial Risks unit is responsible for controlling operational risk and reputational risk with the support of the relevant operational risk managers.

Controlling the business risk consists mainly of the planning of earnings and costs by the individual operating segments, which the Finance organisation proactively coordinates. The relevant operating segments are responsible for controlling the financial investments. The real estate risk arising from the property portfolio within the Group is controlled centrally by the Operations division. Within HVB Group, this is performed by the Real Estate units (ORS1 and ORS6). HVB Group has undertaken to provide a range of different pension plans, which are largely financed by various investment vehicles, some of which are external. Under the capital investment process, there are separate rules covering the specific risk controlling of the different pension plans in each case. Some of these are subject to supervision by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht - BaFin), specifically by the Insurance and Pension Funds Supervision unit, and therefore need to comply with external rules and regulations. Controlling of strategic risk is the shared responsibility of HVB's Executive Board.

Risk monitoring

The central risk monitoring function within the CRO organisation is responsible for identifying, measuring and evaluating the risks at HVB Group. It is structured according to risk types. The risk monitoring functions for the following risk types: market risk and liquidity risk (for the liquidity risk, however, exclusively the risk monitoring functions of stress tests, calculation and monitoring of early warning indicators, calculation of the short-term concentration risk, evaluation of the funding plan) are bundled in the Financial Risk unit, while operational risk and reputational risk are bundled in the Non-Financial Risks unit. In addition, the Financial Risk unit also monitors the market risk component of pension risk at regular intervals using a separately developed model (aggregated view of the plan assets and liabilities) as well as the behavioural model risk. As part of the asset management of the plan assets, the options for risk positioning are limited by both external and internal regulations. Ongoing monitoring of the respective rules is performed in accordance with the specific policies of the various pension plans. With regard to the monitoring of liquidity risk, some tasks are performed by the Financial Risk unit while further risk monitoring functions for this risk type are the responsibility of the ALM & Funding unit within the Finance organisation (continuous monitoring of the liquidity risk situation and compliance with limits). The Strategic Credit & Integrated Risks unit monitors credit risk, business and real estate risk as well as the aggregate economic capital and the internal capital requirement. Financial investment risk is depicted via market risk and credit risk. The monitoring of strategic risk is the shared responsibility of HVB's Executive Board. Sustainability risk materialises via the traditional risk types (credit risk, market risk, operational and reputational risk, liquidity and funding risk) and is gradually being integrated into risk monitoring in the course of a project.

Risk Report (Continued)

The following are quantifiable risk types: credit risk, market risk (including behavioural model risk), operational risk, business risk, financial investment risk (covered under credit risk and market risk), real estate risk, pension risk, reputational risk, and the model risk quantified as risk charge on the established risk types. The available risk coverage potential is defined, quantified and compared with the risk capital in order to analyse the risk-taking capacity.

Liquidity risk is also a quantifiable risk but is not included in the calculation of the risk-taking capacity.

A qualitative approach is used to monitor strategic risk.

Divisions

Chief Risk Officer

The controlling and cross-business area management of risk at HVB Group fall within the competence of the Chief Risk Officer (CRO). This is where all the key functions involved in the identification, analysis, assessment and reporting of risk are performed together with the ongoing tracking, handling, monitoring and controlling of risk. These activities are supported and complemented by various CFO units, notably with regard to liquidity risk.

The CRO organisation is divided into units that deal with lending business in the back office. The main functions of these units include:
- operational functions in the credit-decision and credit-monitoring processes for the risk-relevant lending business, complete with monitoring of the issuer and counterparty limits
- identification and control of risk at the preliminary stages in order to reduce risk
- restructuring activities with a view to minimising losses for the Bank

At the same time, there are units that cover operational and strategic aspects of risk monitoring. Their main functions include:
- the development, enhancement, parameterisation and calibration of the rating models used to determine the probability of our customers defaulting
- validation of Pillar I and II systems for risk measurement that contain the following components: models, associated processes, IT systems and data
- the development of concepts used to identify and control credit risk and concentrations, including country risk
- responsibility for the measurement methods and the refinement of the measurement methods and systems, and for the management and measurement of market risk and liquidity risk
- responsibility for the measurement methods and the refinement of the measurement methods and systems, and for the management and measurement of operational risk as well as responsibility for reputational risk and its management
- the determination of the internal capital and the economic capital base
- ensuring ICAAP compliance, ensuring compliance with the MaRisk rules as part of the responsibility for credit risk and economic capital and the performance of stress tests
- ensuring compliance with regulatory rules regarding internal and external reports
- risk reporting

Chief Financial Officer (CFO)
The ALM & Funding and Planning units from the Finance (CFO) organisation play a major role in risk monitoring.

The ALM & Funding unit notably covers the management of short- and long-term liquidity at HVB Group (Asset Liability Management) acting in concert with the front office units and asset/liability management.

Planning (CCP) has been tasked with central business management and cost controlling of HVB Group. CCP has responsibility for the processes involved in preparing the income budgets and the income projections as well as the preparation and plausibility checks of the internal segment report according to IFRS. CCP is also responsible for managing holdings, managing capital and capital allocation as well as the risk-return methodology. Furthermore, CCP includes the business segment-related controlling departments for all the segments apart from the Corporate Center. The reconciliation of net trading income for Client Risk Management is carried out between CCP and Accounting. The reconciliation of net trading income for Treasury is carried out between Accounting and Finance.

Asset Liability Management
The ALM & Funding unit controls Asset Liability Management by managing short-term and long-term liquidity within HVB Group. Its main objectives are to ensure that HVB Group has adequate liquidity at all times and to optimise the funding structure and costs. Asset Liability Management monitors trends and happenings on the money and capital markets and manages liquidity and funding requirements. As part of liquidity risk management, the ALM & Funding unit performs ongoing monitoring of the liquidity risk situation, in addition to the activities on the part of CRO, and manages funding activities together with the front office units. Within the framework of a liquidity cost allocation mechanism for all significant business activities, the internal transfer prices for the lending and deposit-taking activities are continually reviewed for appropriateness and regularly adjusted to reflect the market situation, for instance. The measures implemented in connection with these functions serve to support HVB Group’s return targets.

Internal Audit
A number of important tasks regarding the implementation of an efficient risk management system have been entrusted to the Internal Audit department as described in the section entitled “Monitoring the effectiveness of the ICS”.

Committees
The committees and their procedures, composition, tasks and responsibilities are each laid down in their own internal regulations. The most important committees are listed below, but the list is not exhaustive.

Risk Report (Continued)

Financial and Credit Risk Committee
The Executive Board has entrusted the following tasks to the Financial and Credit Risk Committee (FCRC), subject to its management competence and its ultimate decision-making authority at any time:
– decisions regarding suitable policies and methods, especially for credit risk and credit portfolio management as well as other risk topics, including issues relevant to market and liquidity along with asset/liability management issues
– discussion of and decision on strategic risk policy issues
A submission is always made to the Executive Board when required for legal reasons, for instance (such as to comply with the MaRisk rules).

The FCRC generally meets once a month and consists of two separate sessions: Credit Risk Session and Financial Risk Session.

Local Transactional Committee
The Local Transactional Committee (LTC) is responsible - within the scope of the authorisation for credit activities and the associated thresholds assigned to it – for assessing and approving the acceptance and review of credit lines. This committee is also charged with certain tasks in connection with equity investments and equity-related investments resulting from debt-to-equity-swap transactions.

Loan Loss Provision Committee
The Loan Loss Provision Committee (LLPC) approves decisions on loan loss provisions/write-downs and impairment losses from an amount of €5 million on customer group level and meets once a quarter.

Non-Financial Risk and Control Committee
The Non-Financial Risk and Control Committee (NFRCC) makes decisions on coordination between the operational business units, Risk Management, Compliance and Internal Audit with the goal of identifying non-financial risks (e.g. external events, regulatory, emerging risks such as anti-fraud, ICT, digital security, business continuity management, third-party risk management and reputations) and to review the effectiveness of related measures.

Implementation of overall bank management

Strategy
The business strategy and the risk strategy define the cornerstones of business and risk policy for HVB Group. The subsidiaries, outsourcing, sustainability (ESG), and information and communication technology (ICT) are incorporated in both the risk strategy and the business strategy. The HVB Group business strategy describes the strategic starting point and the organisational structure, the strategic cornerstones at overall bank level and the sub-strategies of the individual operating segments.

The HVB Group risk strategy is derived consistently from the business strategy, supplementing it with the relevant aspects of risk management. The HVB Group risk strategy controls the risk types, credit risk and market risk (including financial investment risk components for each), operational risk, pension risk, reputation risk, real estate risk and business risk using the economic capital, supplemented by an explanation of the model risk. This control is supplemented by risk-type-specific limits in credit risk and market risk. Liquidity risk is managed quantitatively in terms of cash flow analyses and integrated into the planning process via the funding plan. A qualitative description is provided of the strategic objectives for strategic risk, sustainability risk and for outsourcing. The risk strategy is supplemented by the Industry Credit Risk Strategy, which specifies the risk appetite within the individual industries.

The strategies approved by the Executive Board of HVB are reviewed on both an ad hoc and an annual basis and modified when necessary.

Overall bank management

The metrics defined for the overall bank management of HVB Group are reviewed in the annual budgeting process and used to assess the success of the business strategy and the risk strategy. Earnings targets, risk targets, liquidity targets and capital targets are defined in the budgeting process together with the targeted risk-taking capacity at overall bank level. The limits for internal capital are defined and monitored in order to guarantee the risk-taking capacity. For the purposes of operating segment management, the economic capital limits are distributed for the credit, market and real estate risk to ensure that the planned economic risks remain within the parameters defined by the Executive Board of HVB.

Key performance indicators (KPIs) generally applicable across the operating segments have been defined for the management of HVB Group. These KPIs serve to entrench the aspects of profitability and growth, as well as constraints and sustainability.

The value-oriented management of HVB Group focuses on the measurement of the business activities in accordance with return and risk considerations, with a risk-return target set for each of the business units of HVB Group. The expected economic returns are calculated using the allocated capital principle that is applied group-wide by UniCredit. Within the scope of the principle of dual control, both regulatory capital, in the sense of used core capital (Common Equity Tier 1), and internal capital are allocated to the operating segments. Both resources are expected to yield an adequate return, the amount of which is derived from the returns expected by the capital market.

In line with the parameters defined in the business and risk strategies, the defined targets are broken down to operating segment level and then translated into operational metrics for sales management. The defined targets are monitored using a standardised report to the Executive Board of HVB. After corresponding analysis, the Executive Board of HVB initiates countermeasures in response to significant deviations from the targets defined in the budgeting process.

Risk Report (Continued)

Regulatory capital adequacy

Used core capital (Common Equity Tier 1)
For the purposes of planning and monitoring risk-weighted assets, the operating segments are required to have core capital backing of equivalent risk-weighted assets arising from credit, market and operational risks equal to an average of 13.0%. The expected return on investment is derived from the average used core capital (Common Equity Tier 1).

Management of regulatory capital adequacy requirements
Essentially, the following three processes have been defined from the normative capital perspective to safeguard an adequate capital base over the long term:

Yearly budgeting of the regulatory capital taking account of regulatory requirements, while applying the three capital ratios listed below, which are managed within HVB Group's risk appetite framework using internal target, trigger and limit levels:
– Common Equity Tier 1 capital ratio: ratio of Common Equity Tier 1 capital to the sum of risk-weighted assets arising from credit risk positions and the equivalent risk-weighted assets from market and operational risk positions
– Tier 1 capital ratio: ratio of Tier 1 capital to the sum of risk-weighted assets arising from credit risk positions and the equivalent risk-weighted assets from market and operational risk positions
– total capital ratio: ratio of equity funds to the sum of risk-weighted assets arising from credit risk positions and the equivalent risk-weighted assets from market and operational risk positions

Quarterly performance of stress tests of the regulatory capital ratios under various scenarios (details on the stress tests can be found in the section entitled "Stress tests").

Monthly performance of a rolling eight-quarter projection to provide an ongoing forecast of the capital ratios of HVB Group. This projection is supplemented on a quarterly basis by a 3-year simulation of the capital ratios based on three different scenarios to completely map the normative capital perspective.

More details on the development of these capital ratios are presented in the sections entitled "Risk-weighted assets, key capital ratios, and leverage ratio of HVB Group" and "Operating performance of HVB Group" in the section entitled "Financial Review" of this Combined Management Report.

The total capital ratio of HVB Group is 27.1% as at 31 December 2023 (31 December 2022: 23.4%).

Economic capital adequacy

The internal capital is the sum of the aggregated economic capital for all quantified risk types (with the exception of liquidity risk). The economic capital measures the potential for unexpected loss over a time horizon of one year with a confidence level of 99.90%.

When the aggregated economic capital is determined, risk-mitigating diversification effects are taken into account between the individual risk types. HVB Group deploys UniCredit's group-wide model for risk aggregation that uses parameters that are uniform throughout the Group for determining interdependencies between the risk types. In terms of methodology, the model is based on a copula approach where the parameters are estimated using the statistical Bayesian method.

An all-round overview of the risk situation of HVB Group is obtained by assessing the risk-taking capacity on a quarterly basis, as shown in the table “Internal capital after portfolio effects”.

Internal capital after portfolio effects (confidence level 99.90%)

	2023		2022	
Broken down by risk type	**€ millions**	**in %**	**€ millions**	**in %**
Credit risk	2,860	37.7	4,077	41.4
Market risk[1]	2,770	36.6	3,634	36.9
Pension risk	976	12.9	1,100	11.2
Operational risk	413	5.4	428	4.3
Real-estate risk	138	1.8	129	1.3
Business risk	188	2.5	215	2.2
Reputational risk	72	1.0	47	0.5
Aggregated economic capital	**7,417**	**97.9**	**9,629**	**97.9**
Model risk charge	160	2.1	211	2.1
Internal capital of HVB Group	**7,577**	**100.0**	**9,840**	**100.0**
Included diversification effects	-1,046		-1,086	
Risk coverage potential of HVB Group	**17,674**		**19,306**	
Risk taking capacity of HVB Group, in %		**233.3**		**196.2**

1 Including behavioural model risk
Contains rounding differences.

Internal capital fell by €2,263 million in comparison to 31 December 2022. The decline is mainly due to reductions in credit, market and pension risk based on methodological changes or recalibration in the model. The main changes are described under the respective risk type.

Internal capital (without pension risk and without the model risk charge) broken down by operating segment (confidence level 99.90%)

	2023		2022	
Broken down by operating segment	**€ millions**	**in %**	**€ millions**	**in %**
Retail	547	8.5	640	7.5
Corporates	3,403	52.8	4,517	53.0
Other	2,491	38.7	3,373	39.5
Internal capital (without pension risk and without the model risk charge) of HVB Group	**6,441**	**100.0**	**8,530**	**100.0**

The decline in the Corporates segment is primarily driven by credit risk. It is attributable to methodological changes, the most significant of which was implemented in the credit portfolio model, where the database for default risks was improved. The decline in the Other segment (central functions) is due to the reduction in market risk, which is driven by the behavioural risk model. This risk is allocated in particular in the Other segment (central functions).

Risk Report (Continued)

Risk appetite
The risk appetite is defined as part of the annual strategy and planning process for HVB Group, whereby selected metrics are monitored only for HVB. The risk appetite metrics comprise specifications that are broken down into regulatory metrics and managerial metrics and subdivided into categories such as capital, liquidity and interest rate risk, credit risk or risk and earnings. For the most part, targets, triggers and limits are defined for these metrics that allow excessive risk to be identified and countermeasures to be initiated at an early stage. The matter is escalated to the appropriate persons with authority, committees and the Executive Board of HVB, should the defined limits be exceeded or not reached.

Consistent going concern approach
Since 2019, HVB Group has managed its risk-taking capacity from an economic perspective as part of an approach to the ongoing protection against risks and the continuation of business activities from a capital perspective (continuity of operations). At the same time, targets, triggers and limits are defined for regulatory capital backing as well as for risk-taking capacity.

Recovery plan
The preparation of recovery plans (RPs) is intended to facilitate the restructuring of systemically important financial institutions. Until the end of 2023, UniCredit S.p.A. was identified as systemically important at a global level and HVB at national level. Supervision of HVB passed to the ECB when the Single Supervisory Mechanism (SSM) came into effect in November 2014. According to a decision of the Joint Supervisory Team (JST), HVB, as part of UniCredit, has not been required to prepare an HVB Group recovery plan since 2015. For this reason, HVB works in close collaboration with UniCredit S.p.A. each year to prepare a joint “UniCredit Group Recovery Plan”. This Recovery Plan was officially submitted to the ECB on 29 September 2023 and has been in effect since then.

Risk-taking capacity
As part of an analysis of the risk-taking capacity, HVB Group measures its internal capital against the available risk coverage potential (available financial resources). Furthermore, the risk-taking capacity is analysed across a defined multi-year period as part of the planning process.

HVB Group uses an internal definition for the risk coverage potential that, like risk measurement, has been based on a going concern approach since 2019. Under this approach, available financial resources are sufficient to continuously hedge against risks so as to ensure business operations are maintained. The risk-taking capacity is defined by comparing unexpected losses at the confidence level (internal capital) with the ability to absorb losses using the available financial resources (risk coverage potential). When determining the risk coverage potential, regulatory core capital is taken as the starting point. To maintain consistency with internal risk quantification, certain capital deductions (particularly expected losses and securitisation positions) within the definition of equity are brought into line with the internal economic perspective and some future profits are taken into account. The risk coverage potential at HVB Group totalled €17,674 million as at 31 December 2023 (31 December 2022: €19,306 million).

With internal capital (including the model risk charge) of €7,577 million, the risk-taking capacity of HVB Group is 233.3% (31 December 2022: 196.2%). This figure is higher than the target of 160% HVB Group set itself in the 2023 risk appetite framework. The increase of 37.1 percentage points in comparison with 31 December 2022 for HVB Group is attributable to the reduction in internal capital. The internal capital declined by €2,263 million or 23% in 2023. The risk coverage potential is €1,632 million or 8.5% lower due to the amendment of the definition in 2023 (additional Tier 1 capital instruments are no longer recognised within the risk coverage potential).

Limit concept
The risk limit system is a key component of the ICAAP at HVB Group. Its purpose is to guarantee the Bank's risk-taking capacity at each reporting date by means of an integrated controlling process. A wide-ranging, consistent limit system that includes the specification of limits for internal capital and economic capital, risk-type-specific limits and limits for risk concentrations has been implemented to ensure this. This covers all the risks that need to be backed with capital, which are currently the credit, market (including pension risk and behavioural model risk), operational, business, real estate and reputational risk. In addition, any model risks are included in the internal capital by means of a charge.

This system of limits reflects the business and risk strategies, taking into account the risk appetite and the risk coverage potential, at the level of HVB Group, and ensures compliance with the risk-taking capacity. The risk limits are approved by HVB's Executive Board each year during the strategy process.

The internal capital limits are allocated at the level of HVB Group, broken down by risk type and for the internal capital as a whole. Based on the aggregate limit set for internal capital, the risk-taking capacity of HVB Group is guaranteed at each reporting date.

In order to identify at an early stage any potential overshooting, HVB Group has specified triggers in the form of early warning indicators in addition to the defined limits. The utilisation of, and hence compliance with, the limits is presented in the Bank's reports. Any overshooting of limits is immediately escalated and the return to compliance with limits is monitored.

Stress tests
The MaRisk rules call for stress tests to be carried out regularly using various scenarios.

Various macroeconomic downturn scenarios and a historical scenario were calculated for the cross-risk-type stress tests in 2023:
– Recession scenario (from June 2022) – recession in Europe driven by rising energy prices
– Hawkish scenario (until September 2023) – deep recession in Europe forces the ECB to raise interest rates
– Global trading and energy shock scenario (from December 2023) – deep recession in Europe due to high inflation
– No recovery scenario (from June 2023) – recession in Germany with only a mild recovery in 2025
– Historical scenario (from December 2020) – historical scenario based on the 2009 financial crisis
– China slowdown scenario (from September 2023) – weakening of the Chinese economy with global contagion effects
– Financial intermediary scenario - a tougher version of the historical scenario (additionally maps the default of the financial intermediary with the highest stressed counterparty risk exposures)

The stress tests across risk types are presented and analysed on a quarterly basis in the Financial and Credit Risk Committee and any measures required are presented to HVB's Executive Board. Both the risk-taking capacity and the minimum requirements for regulatory capital ratios of HVB Group were met and complied with after the occurrence of the stress test scenarios listed. The risk-taking capacity within the scope of the stress test was established with a confidence level of 99.90%.

Risk Report (Continued)

Furthermore, inverse and ad hoc stress tests are carried out.

Inverse stress tests involve analysing what events could endanger the continued existence of the Bank as a going concern. The continued existence as a going concern is considered at risk when the original business model proves to be no longer feasible or viable. The hypothetical events analysed included fraud by a trader, rating downgrades, a bank run and default by customers and industries.

Ad hoc stress tests are carried out in response to internal and external events that might have a considerable impact on HVB Group.

Concentrations of risk and earnings
Concentrations are accumulations of risk positions that react in a similar way to specific developments or events. Concentrations may have an impact within a risk type or equally across risk types. They indicate increased potential losses resulting from an imbalance of risk positions held with customers and in products or specific industries and countries.

Concentrations are analysed, monitored, managed and reported at least once a year with regard to the relevant risk drivers for credit, market, liquidity and operational risk. In particular, appropriate instruments and processes ensure the prompt identification of concentrations. Monitoring, the suitability of which is reviewed each year, is used as the steering approach for the risk types financial investment risk, real estate risk and pension risk.

Risk management processes for concentrations have been set up with a view to interlinking risk drivers across risk types, such that concentration risk is integrated into assessment and controlling functions.

The concentration of earnings with individual customers or in operating segments, products, industries or regions represents a business-related strategy risk for the Bank. Risks arising from concentrations of earnings are monitored each year, as avoiding these is an important indicator of sustainable diversification and hence the viability of the business model in crisis situations.

Risk inventory
The scheduled comprehensive yearly risk inventory at HVB Group was started in the first quarter of 2023. Existing and potential new risks are analysed and critically evaluated by means of structured interviews with numerous decision-makers within HVB Group and by means of questionnaires, among other things. This interview also covers aspects concerning the Russia-Ukraine conflict as well as sustainability topics. The outcome of the 2023 risk inventory was presented to HVB's Financial and Credit Risk Committee in October 2023 and included in the calculation and planning of the risk-taking capacity. The risk inventory serves to review the overall risk profile of HVB Group. Various topics are identified, some of which are included in the stress test and in the validation of the measurement methods used for the material risk types and other ICAAP components.

Internal reporting system
The internal reporting system supports risk monitoring at portfolio level in particular. Within the framework of the internal reporting system, information is provided on the overall risk to HVB's Executive Board and the Risk Committee of the Supervisory Board on a monthly basis, to the full Supervisory Board at least on a quarterly basis and also on an ad hoc basis. In addition, further monthly risk reports focusing on specific countries and industries are created.

Risk types in detail

1 Credit risk

Categories

Credit default risk
Credit default risk is considered to occur with regard to a specific contracting party when one or both of the following criteria are satisfied:
– The Bank assumes the contracting party is probably not in a position or willing to meet its entire contractual obligation towards HVB Group, without having to take recourse to measures like the sale of collateral (where present).
– The contracting party is more than 90 days in arrears in terms of a material loan receivable of HVB Group.

Credit default risk also encompasses counterparty risk and issuer risk.

Counterparty risk
Counterparty risk arises from the possible loss of value due to the default of the counterparty in trading activities (such as derivatives involving interest rates, foreign exchange, equities/indices, or other futures or derivative contracts). It is divided into the following components:
– settlement risk
– pre-settlement risk
– money market risk (cash risk)

Issuer risk
Issuer risk is defined as credit default risk in the securities holding resulting from the downgraded credit rating or default of an issuer that can lead to a loss of value through to total loss. Issuer risk arises from the purchase of securities, securities issuance activities, credit derivatives and the placement of securities.

Country risk
Country risk is the risk of losses caused by events attributable to actions by the government of a given country. This includes the repayment of capital in a specific country being prevented by government intervention, which gives rise to various risks (such as transfer risk, expropriation risk, legal risk, tax risk, security risk). It also includes the risk of repayment of capital being prevented by a deterioration in the economic and/or political environment (such as through recession, a currency and/or banking crisis, natural disasters, war, civil war, social unrest).
Country risk encompasses:
– sovereign risk (state as counterparty)
– transfer and conversion risk

Risk Report (Continued)

Strategy
A risk strategy has been approved for HVB Group that operationalises the strategic controlling of credit risk. This is done by setting targets and limits for different metrics as needed. Controlling using economic capital, together with volume and risk metrics, is particularly important in this regard. The planning of the targets and limits is embedded in HVB Group's annual plan and takes into account ceilings arising from the requirements regarding the capital base. The limits are intended to leave scope for implementation of the business planning and also to set upper limits, specifically with regard to economic capital.

Systematic controlling and setting of limits for credit risk are essential for sustaining HVB Group's strategic orientation. The risk strategy is intended to make it possible for both the sales controlling and risk management functions to back transactions with concrete, measurable criteria in order to optimise the risk profile of the credit portfolio. To achieve this, the expected and unexpected losses of a given borrower are determined. These form the basis for drawing up limits and in some cases target portfolios for the different risk types, exposures and risk metrics.

The Industry Credit Risk Strategy includes an assessment of the opportunities and risks for every industry, from which controlling signals and quantitative ceilings for new business are derived.

Limit system
The credit risk strategy defines limits for risk metrics and risk types for individual portfolios. These are allocated at the following levels:
– HVB Group
– HVB and subsidiaries, or groups of subsidiaries of HVB Group
– operating segments of HVB Group and HVB
– products and special portfolios

The following criteria are analysed with regard to the performing portfolio: exposure, expected loss and risk density. An overshooting of the limits is generally not permitted.

In order to avoid concentrations of risk in credit default risk, the following concentration limits and, where appropriate, target portfolios are used for controlling purposes:
– single-name concentrations
– industry concentrations
– concentration limits for countries and regions
The utilisation of the individual limits is classified using a traffic light system:
– green: limit utilisation is below a defined trigger
– yellow: limit utilisation is below the limit but above the defined trigger
– red: limit utilisation is above the limit

If a limit or a trigger is exceeded, an escalation process is initiated to eliminate the overshooting or prevent an overshooting of the limit in the event that a trigger is exceeded. The corresponding responsibilities are defined in the escalation process to ensure the permanent controlling effect of the limits.

Credit risk mitigation

In new lending, HVB pursues the strategy of applying loan collateral that would present an economic benefit to the Bank in the event of default.

For the reduction of credit risk, only such collateral is used as meets the requirements of the Advanced Internal Ratings Based (A-IRB) approach in accordance with Basel III.

Methods have been implemented to value collateral that meet the requirements of Basel III. Empirically determined loss ratios (LGD secured), realisation periods and haircuts are employed in the valuation. The land charges are calculated using a statistical model to update the current and forecast fair values at the time of realisation. The fair values are adjusted on an annual basis to reflect the market developments actually observed, and the forecast is reviewed and, where necessary, adjusted. Special simulation methods for valuing collateral have been devised for collateral types with a low default history. In the case of securities, HVB resorts to its own haircut calculations based on historical data. In addition, collateral is taken into account using a substitution approach if permissible under the CRR.

The most significant collateral types in terms of value in the lending business are land charges, guarantees and pledges of financial collateral, which together account for approximately 90% of all valued collateral.

In trading activities, over-the-counter (OTC) derivatives, security financing transactions (SFTs) and exchange-traded derivatives (ETDs) are hedged on the basis of the respective contractual provisions with the counterparties. In the case of OTCs, these are essentially the International Swaps and Derivatives Association (ISDA), the German Master Agreement for Derivatives (Deutscher Rahmenvertrag für Finanztermingeschäfte – DRV) and the Credit Support Annex (CSA, appended to an ISDA master agreement), the CRD (Credit Support Deed) or BRV (appended to a DRV master agreement). In the case of SFTs, these are the Global Master Repurchase Agreement (GMRA) or the Global Master Securities Lending Agreement (GMSLA). For credit risk reduction, only collateral recognised as eligible under the CRR is permitted for regulatory purposes. Internally, the collateral policy defines conditions for accepting collateral in trading activities. The back office has a consultation and veto right in this regard. Collaterals from the trading business are measured on the basis of current market prices. The counterparty risk exposure is forecast using a refined internal model for predicting the amount of collateral needed and the value of the collateral provided (simulation method).

Measurement

We use the following risk measurement methods and metrics to assess our credit risk.

Risk Report (Continued)

Probability of default (PD)
The internal customer-segment-specific rating and scoring methods of HVB Group that are available for all significant credit portfolios form the basis for the measurement of credit default risk. The reliable determination of our customers' PDs is critical for credit decisions, pricing and core capital backing under Basel III (A-IRB model) as well as for the internal credit risk model.

The PDs determined on the basis of the rating and scoring methods lead to allocation to a rating class on a ten-point scale. The rating classes 1 to 7 are set aside for performing loans and the rating classes 8 to 10 for non-performing loans, with the rating classes 8-, 9 and 10 representing default classes.

In contrast to ratings at customer level for which the customer represents the risk for the Bank, in the case of a transaction rating the risk relates to the transaction. In this instance, the customer is not considered the risk-bearing entity; the individual transaction is rated with its clearly specified risk instead. Typical examples for which transaction ratings are applied are structured loans and securitisations.

Loss given default (LGD)
The LGD indicates what proportion of the underlying portfolio of receivables would almost certainly be lost in the event of a default. The expected proceeds from the collateral used to reduce credit default risk have a major influence on the amount of the LGD. At the same time, the amount of the LGD is determined by borrower-related criteria. The reliable determination of our customers' LGD is critical for credit decisions, pricing, core capital backing under Basel III (A-IRB model) and our internal credit risk model.

Exposure at default (EAD)
The EAD is the expected amount of the receivable at the time of default. It covers current arrears together with the probable future utilisation by the borrower. These probable future utilisations are determined on the basis of historical data and validated on an annual basis. Off-balance-sheet exposures such as unused, externally committed credit lines are also employed as the reference point for the EAD parameters. The EAD parameters are also incorporated in the credit decision, pricing, core capital backing under Basel III (A-IRB model) and the internal credit risk model.

The market-value-risk-oriented calculation of exposures and limits based on jump-to-default-zero values (allowing for netting effects) is also carried out for issuer risk in the trading book. A credit-risk-oriented, nominal-value-based exposure is used to limit the banking book and asset-backed security (ABS) positions. Netting effects are taken into account when the limits are set.

In terms of counterparty risk, a simulation method is used to determine future exposure figures for the pre-settlement risk within the scope of an internal model. The default conditional metric used in the internal model to determine the future exposures makes it possible among other things to incorporate the correlation effects between market risk and credit risk, and notably the specific wrong-way risk. The simulation is carried out for up to 50 future dates on the basis of 3,000 market data scenarios for each calculation date.

Expected loss (EL, standard risk costs)
The expected loss shows the credit default losses to be expected from the credit portfolio over the next 12 months, taking into account the current ratings and collateral on hand. Among other things, it is used for risk identification, as both an absolute and a relative value, in pricing, for profitability calculations and for limitation purposes.

Risk density
The risk density is another risk metric alongside the EAD and EL that is used to manage the individual HVB Group sub-portfolios. HVB Group calculates the risk density as the ratio of expected loss to performing exposure in basis points (bps). It indicates the development of risk in a given portfolio.

Unexpected loss (economic capital, EC)
The economic capital measures the amount of capital required to cover the unexpected loss beyond the expected loss, which, with a probability of 99.90%, will not be exceeded over the next 12 months. This risk metric makes the risk content of the various sub-portfolios comparable, taking into account the concentration risks in the portfolio. It is also used in pricing and the Bank's risk-adjusted profitability calculations.

Internal credit risk model
HVB Group has been using the credit portfolio model used throughout UniCredit to measure the economic capital of credit risk. The group model follows the structural Merton approach under which correlations between the borrowers are mapped using a multi-factor model, taking into account fluctuations in value arising from rating changes (migration risk) for certain sub-portfolios as well as the pure credit default risk.

The credit portfolio model covers all banking book positions and counterparty risks arising from derivative positions that are relevant pursuant to the definition of credit risk. Issuer risk from the trading book continues to be recorded using the incremental risk charge (IRC) model, which forms part of the market risk in the presentation of the ICAAP.

Country risk is integrated using appropriate PD add-ons. Risk-reducing factors are included by applying reductions to the LGDs and PDs.

Impairment Overlays
Although the models used to determine impairments are generally able to depict a tense economic market environment, these were expanded to include what are known as overlays in order to adequately capture the effects of the numerous current industry-specific crises. The total overlay (geopolitical and CREF overlay) amounts to €188 million as at year-end 2023 (after €194 million as at 31 December 2022). The methodology of the overlays as well as all major adjustments are submitted to the local Financial and Credit Risk Committees for adoption. In keeping with the temporary nature of overlays, the Bank plans to transfer these to the models in the medium term if the overlay was not fully utilised or was not reversed as the original reason for setting up the overlay no longer applied.

Risk Report (Continued)

Geopolitical overlay
Geopolitical overlays were applied in 2022 to take account of risks resulting from the Russia-Ukraine conflict that led to an increase in energy costs, inflation and interest rates for both companies and private individuals.

The geopolitical overlay is still required to ensure a fair extent of impairments at Level 1 and 2 for the specific segments at risk. This cannot be captured by the Group's macro dependency model ("satellite model") because industry-specific estimates cannot be derived from this. Although some effects of the Russia/Ukraine conflict have weakened somewhat compared with the previous year, for example energy availability, the current macroeconomic context is still subject to a high level of uncertainty – primarily due to geopolitical tensions in the Middle East. As a result of this, the situation on energy markets remains very uncertain. Furthermore, inflation is still high and domestic price pressure is as strong as before. A rapid and noticeable reduction in the level of interest rates by the ECB is not in sight either. In this environment, downturn risks remain high and the Bank has therefore applied a complementary geopolitical overlay of €64 million to sub-segments also for the fourth quarter 2023 in the expectation that it will be fully utilised. In the current review process for the overlays applied, customers were identified in 2023 that have developed from Level 2 to Level 3, meaning that a part of the overlay has been utilised.

The geopolitical overlay is based on the following components:
– Companies from energy-intensive sectors as these are more susceptible to the consequences of the Russia-Ukraine crisis, in particular in terms of energy supply and the related increase in prices
– Individual customers,
  - with a variable interest mortgage loan (without overdue instalments) as these are seen as being particularly susceptible to rising interest and inflation rates, or
  - that are overdue with one instalment payment on at least one loan, as these customers are seen as being particularly vulnerable in the light of the current situation.

Commercial real estate business overlay
In addition, the persistently high level of interest rates is increasingly affecting the commercial real estate and construction industry, which is struggling with fewer orders, higher construction costs due to inflation, property prices falling in some cases and an increase in refinancing risks. In some areas, there is also a gap due to continued low rental income as long-term lease agreements cannot be adjusted in the short term to include the increase in costs. As this is a specific industry effect and no specific industry estimates can be derived from the Group's macro dependency model ("satellite model"), the Bank has decided to supplement the existing geopolitical overlay by a new commercial real estate finance – CREF– overlay. This covers the entire building construction and real estate sector in addition to CRE companies. There is no overlapping of the geopolitical and CREF overlay. The methodological approach in this regard functions in the same way as the geopolitical overlay. Based on the default rates of specific segments, an additional flow is expected in the non-performing portfolio. As a result, higher impairments are already being recognised in the performing portfolio. The additional impairments entered in this way amount to €124 million as at year-end.

Cross-border overlay
In 2022, impairments for companies directly affected by the conflict in Ukraine came to €16 million. These were reversed in 2023 for reasons of immateriality as some of the companies affected changed to a non-performing status, business relations were terminated with some of the companies and most of the remaining companies received a new rating.

Risk-based and market-oriented pricing
To manage risk and profitability in the lending business, pricing methods and tools are used that take into account all cost components – in particular the expected standard risk costs and the cost of capital – and that are each adjusted to reflect the current parameters and bank management. Lending decisions are made under risk/return considerations that are determined in the obligatory pre-calculation prior to a transaction being concluded.

Monitoring and controlling
Risk monitoring takes place at the level of individual exposures. In addition, various instruments are used at portfolio level.

Individual exposures are monitored in both lending and trading operations with the aid of classical monitoring systems, such as rating analysis and early warning systems. Individual exposure limits are also defined in line with the probability of default to limit the risks entered into. Monitoring and reporting of any limit overshootings take place on a monthly basis.

Special features of counterparty risk and issuer risk
We employ limit systems as a key element of the management and controlling of counterparty risk as well as issuer risk to prevent an increase in our risk position that does not comply with the strategy. Each new trade is entered and applied to the corresponding limit without delay (the same day). The pre-settlement risk is established on the basis of an internal model method (IMM) and is recognised by the banking supervisory authorities for calculating capital requirements. To reduce counterparty risk relating to financial institutions, HVB Group uses derivative exchanges in its function as a central counterparty.

Quantification and specification
The economic capital for credit risk at HVB Group, without taking account of diversification effects between the risk types and without the model risk charge, amounts to €3,055 million, which is €1,228 million lower than the reported figure as at 31 December 2022 (€4,283 million). The main change in credit risk relates to a methodological adjustment in the credit portfolio model. The database of default rates has been improved and the correlation estimates based on it revised, resulting in a decreasing effect of economic capital in credit risk.

Risk Report (Continued)

Credit default risk
The following tables and charts for credit default risk show the aggregate exposure values (total of non-performing and performing exposure) of HVB Group including issuer risk from the trading book. Issuer risk from the trading book is also included in the regulatory market risk analysis by way of the incremental risk charge. Comments in this regard can be found in the section covering market risk.

The aggregate exposure to credit default risk is referred to as credit default risk exposure, or simply exposure, in the following. Account balances on the entry date are included in the calculation of exposure.

The remaining exposures assigned to the former Real Estate Restructuring business area are excluded from the analysis because the portfolio does not include any further new business and is earmarked for elimination. The portfolio has been reduced consistently in recent years and now stands at €16 million (31 December 2022: €17 million).

Development of metrics by operating segment

	EXPECTED LOSS[1] € millions		RISK DENSITY[2] in bps	
Broken down by operating segment	**2023**	**2022**	**2023**	**2022**
Retail	103	97	24	23
Corporates	234	274	15	17
Other	3	3	1	—
HVB Group	**340**	**374**	**13**	**14**

1 Expected loss of the performing exposure without issuer risk in the trading book.
2 Risk density as a ratio of expected loss to performing exposure without issuer risk in the trading book in basis points (bps); 100bps = 1%.

In 2023, the expected loss of HVB Group was reduced by €34 million, the risk density improved by 1bp.

The key contributor to this development was the Corporates operating segment, which recorded decreases of €40 million in expected loss and 2bp in risk density. Decisive factors in this connection were rating upgrades and reductions in exposure, among other things.

Breakdown of credit default risk exposure by operating segment and risk category

	CREDIT DEFAULT RISK EXPOSURE		OF WHICH COUNTERPARTY RISK		OF WHICH ISSUER RISK IN BANKING BOOK		OF WHICH ISSUER RISK IN TRADING BOOK	
Broken down by operating segment (€ millions)	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Retail	42,723	43,122	70	70	—	—	—	—
Corporates	162,637	169,365	17,459	22,324	18,235	16,527	1,568	1,545
Other	54,363	65,210	106	1,142	32,351	28,497	0	0
HVB Group	**259,723**	**277,697**	**17,635**	**23,536**	**50,586**	**45,024**	**1,568**	**1,545**

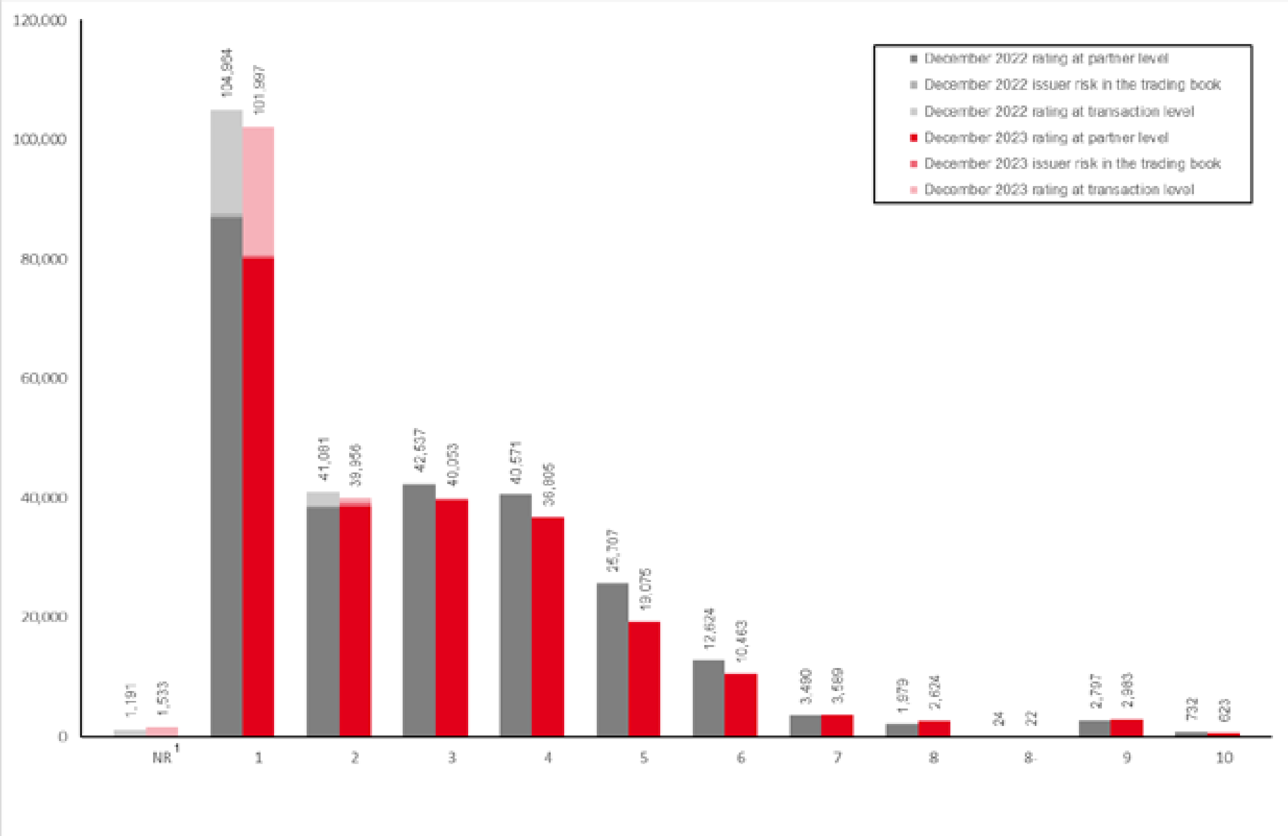
HVB Group’s credit default risk exposure declined by €17,974 million in 2023.

This is primarily due to the decrease in exposure of €10,847 million in the Other operating segment as a result of reduced deposits at Deutsche Bundesbank.

In addition, exposure in the Corporates operating segment decreased by €6,728 million, particularly in the following sectors: financial institutions, construction, building materials, as well as energy and chemicals, pharmaceuticals and health sectors.

In the Retail operating segment, exposure fell slightly by €399 million.

Breakdown of credit default risk exposure by rating class (€ millions)



1 Not rated.

The rating structure of HVB Group changed in the course of 2023, primarily as a result of the decrease in exposure in rating classes 1 to 6. Decisive factors in this connection were rating migrations, in addition to the business development of various customers.

Risk Report (Continued)

Development of metrics by industry group

	Credit default risk exposure € millions		Of which issuer risk in trading book € millions		Expected loss[1] € millions		Risk density[2] in bps	
Broken down by industry group	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Financial institutions (incl. foreign sovereigns)	59,126	74,746	1,008	1,117	16	40	3	5
Real estate	33,499	33,510	12	19	49	54	15	16
Special products	24,488	19,899	1	2	14	5	6	3
Public sector (incl. German sovereign, excl. public service companies)	17,597	18,574	47	43	—	—	—	—
Energy	12,204	13,287	55	44	13	12	11	9
Machinery, metals	11,515	12,276	42	21	27	29	24	24
Chemicals, pharma, healthcare	10,693	11,851	51	41	40	33	39	28
Automotive	10,100	10,578	77	28	11	17	11	17
Consumer goods	8,794	6,984	15	21	21	16	24	23
Services	6,707	6,754	49	33	29	21	45	32
Construction, building materials	6,666	8,219	9	11	15	18	23	22
Telecommunication, IT	6,481	6,835	63	37	12	8	19	12
Food, beverages	5,938	6,468	6	20	10	12	18	19
Transport, travel	5,107	5,662	50	22	7	13	14	23
Electronics	3,480	3,428	15	5	6	6	19	18
Agriculture, forestry	3,391	3,634	1	6	8	7	24	19
Media, paper	2,261	2,325	8	17	5	14	23	60
Tourism	2,253	2,623	1	1	4	9	21	43
Textiles	1,574	1,879	4	10	5	4	38	21
Shipping	1,047	1,308	—	—	2	7	15	55
Public service companies	1,017	1,072	49	44	1	1	5	6
Private customers	25,765	25,742	—	—	45	48	18	19
Other	20	43	5	3	—	—	63	2
HVB Group	**259,723**	**277,697**	**1,568**	**1,545**	**340**	**374**	**13**	**14**

1 Expected loss of the performing exposure without issuer risk in the trading book.
2 Risk density as a ratio of expected loss to performing exposure without issuer risk in the trading book in basis points (bps); 100bps = 1%

How the top five industry groups developed by exposure within HVB Group is described below.

Financial institutions (including foreign sovereigns)
The exposure in the financial institutions (including foreign sovereigns) industry group fell by €15,620 million as at 31 December 2023 compared with year-end 2022, primarily due to reduced deposits at Deutsche Bundesbank. The portfolio’s expected loss decreased by €24 million and the risk density by 2bps, as a result of the business development of various customers.

Part of the exposure in the financial institutions (including foreign sovereigns) industry group resulted from credit risk exposure to UniCredit S.p.A. and other entities affiliated to UniCredit (upstream and downstream exposure) on account of the strategic positioning of HVB as the group-wide centre of competence for the client risk management and investment banking of UniCredit and other business activities (such as export finance and guarantees).

Real estate
In the real estate industry group, exposure as at 30 December 2023 was at an almost unchanged level (€33,499) compared to year-end 2022, with both the expected loss decreasing by €5 million and the risk density falling by 1bp. This was mainly due to a generally weaker real estate market with fewer transactions in commercial real estate and a volatile market interest rate trend over the course of the year. The financing business remains focused on Germany.

Special products
Special products transactions include ABS/CDO bond investments, customer-related securitisations, securitisations of UniCredit's own assets, structured credit products such as structured working capital finance, margin loan finance and other structured financial transactions (not including project and acquisition finance).

In the special products industry group, exposure increased by €4,589 million in 2023 compared with year-end 2022. In this context, the focus remained on customer-related securitisations and ABS/CLO bond investments, which is also in line with the 2023 risk strategy. The latter determined a strategy of growth within clearly defined parameters involving conservative credit standards (for instance in relation to asset classes and rating quality) for sub-segments of the special products portfolio. Although this growth led to an increase in the expected loss and the risk density, these key ratios, at €14 million and 6bps respectively, continue to remain at a very low level compared with other industry groups.

Public sector (including German sovereign, excluding public service companies)
The public sector (including German sovereign, excluding public service companies) industry group essentially contains public authorities and the customer group comprising legal entities under public law in general. As the German states and the development banks enjoying the formers' full liability represent important counterparties for internal liquidity management, the vast majority of the exposure is due to HVB's own liquidity reserves.

In the public sector industry group (including German sovereign, excluding public service companies), exposure decreased by €977 million in 2023. This decline is primarily attributable to the change in a customer's allocation to an industry group. On the other hand, the exposure of the Bank's own liquidity reserves increased in 2023.

Energy
Exposure in the energy industry group decreased by €1,083 million in 2023. The reduction was influenced mainly by the continuing major volatility of energy and raw material prices. As our focus for new energy business is on large international companies with strong credit ratings, as defined in the risk strategy and in line with our internal sustainability standards, the portfolio quality remained almost constant overall with an expected loss of €13 million (previous year: €12 million) and a risk density of 11bps (previous year: 9bps). Project financing in the renewable energy area is within the scope of the 2023 risk strategy and the financing standards.

Risk Report (Continued)

Exposure development of countries/regions
The following tables provide a comprehensive view of the concentration risk at country level. The exposure figures are shown with regard to the risk country of the customer.

Development of credit default risk exposure of eurozone countries

	CREDIT DEFAULT RISK EXPOSURE		OF WHICH ISSUER RISK IN TRADING BOOK	
Broken down by eurozone countries (€ millions)	**2023**	**2022**	**2023**	**2022**
Germany	173,934	191,353	166	117
France	12,626	12,631	265	151
Italy	8,851	6,359	329	248
Spain	7,662	6,629	23	41
Ireland	6,816	6,866	1	4
Netherlands	4,183	4,736	48	31
Luxembourg	4,030	4,532	13	26
Austria	2,787	2,163	88	173
Belgium	800	711	8	16
Finland	681	606	—	1
Slovakia	90	2	26	2
Portugal	80	88	5	8
Slovenia	26	9	—	1
Estonia	22	22	—	—
Greece	17	16	—	—
Cyprus	12	14	—	—
Croatia[1]	9	8	3	4
Lithuania	1	5	1	4
Malta	—	42	—	—
Latvia	—	—	—	—
Supranational organisations and multilateral banks	4,259	2,783	81	223
HVB Group	**226,886**	**239,575**	**1,057**	**1,050**

1 Croatia has been a member of the eurozone since 1 January 2023. The previous-year figures have been adjusted accordingly.

Italy
The size of the portfolio results from HVB Group’s role as group-wide centre of competence for the client risk management and investment banking of UniCredit. The exposure to Italy also includes the exposure with UniCredit S.p.A.

Development of credit default risk exposure by country/region outside the eurozone

Broken down by country/region outside the eurozone (€ millions)	CREDIT DEFAULT RISK EXPOSURE E		OF WHICH ISSUER RISK IN TRADING BOOK	
	2023	2022	2023	2022
USA	11,456	10,929	238	239
Switzerland	5,755	6,072	34	97
United Kingdom	5,669	6,936	28	16
Asia/Oceania (without Japan, China, Hong Kong)	1,821	2,311	—	1
Western Europe (without Switzerland, UK)	1,641	1,780	27	1
Eastern Europe (without euro countries)[1]	1,279	1.226	162	128
Africa	991	779	—	—
Near/Middle East	859	981	—	—
CIS/Central Asia (without Turkey)	764	928	5	6
including Russia	566	705	5	6
including Ukraine	3	4	—	—
including Belarus	—	1	—	—
Japan	725	3,383	—	—
Turkey	655	725	—	—
North America (without USA)	539	488	4	6
China (including Hong Kong)	433	1,412	—	—
Central/South America	250	172	14	1
Without country classification	—	—	—	—
HVB Group	**32,837**	**38,122**	**512**	**495**

1 Croatia has been a member of the eurozone since 1 January 2023. The previous-year figures have been adjusted accordingly.

In 2023, the total exposure to customers in countries/regions outside the eurozone fell by €5,285 million. The exposure to customers in Russia decreased by a further €139 million in 2023.

Risk Report (Continued)

Financial derivatives
Alongside the goal of generating returns, derivatives are employed to manage market price risks resulting from trading activities (in particular, risks arising from interest-rate fluctuations and currency fluctuations), and also serve to provide cover for on- and off-balance-sheet items within asset/liability management. Besides market risk, derivatives entail counterparty risk and, in the case of credit derivatives, which additionally serve to manage credit risk, also issuer risk.

For purposes of credit default risk, the positive fair values are relevant as replacement values for OTC derivatives. These represent the potential costs that HVB Group would incur to replace all of the original contracts with equivalent transactions in case of the simultaneous default by all counterparties.

On the basis of these replacement values and not taking into account any risk-reducing effects, the maximum counterparty risk for HVB Group as at 31 December 2023 totalled €233.0 billion (31 December 2022: €308.3 billion). The decline of €75.2 billion compared with year-end 2022 is primarily attributable to interest rate derivatives (down €68.1 billion), and here in particular to OTC interest rate swaps (down €64.5 billion). In addition, cross-currency swaps were down by €2.5 billion while equity/index derivatives were down by €1.7 billion and other transactions were down by €1.8 billion.

In accordance with the regulatory provisions under the CRR and taking account of the internal model method (IMM) that has been approved by the regulatory authorities for use by HVB to determine counterparty risk, risk-weighted assets for counterparty risk in HVB Group's derivatives business were €5.0 billion as at 31 December 2023 (31 December 2022: €6.5 billion).

The following tables provide detailed information on the nominal amount and fair values of all derivative transactions and credit derivative transactions of HVB Group.

Derivative transactions

€ millions	NOMINAL AMOUNT					FAIR VALUE			
	RESIDUAL MATURITY			TOTAL		RESIDUAL MATURITY		TOTAL	
	UP TO 1 YEAR	MORE THAN 1 TO 5 YEARS	MORE THAN 5 YEARS	2023	2022	2023	2022	2023	2022
Interest rate derivatives	**2,858,563**	**2,652,661**	**2,301,426**	**7,812,650**	**6,876,005**	**216,113**	**284,185**	**213,467**	**281,745**
OTC products									
Forward rate agreements	1,661,427	286,494	—	1,947,921	1,228,589	1,544	2,602	1,556	2,721
Interest rate swaps	1,055,588	2,196,808	2,180,623	5,433,019	5,276,850	209,495	274,036	207,991	273,961
Interest rate options									
- purchased	20,214	72,162	55,845	148,221	130,980	3,724	4,857	376	198
- written	23,643	75,420	64,612	163,675	145,923	479	249	3,540	4,677
Other interest rate derivatives	15,429	2,906	346	18,681	33,909	871	2,441	4	188
Exchange-traded products									
Interest rate futures	27,318	6,871	—	34,189	50,754	—	—	—	—
Interest rate options	54,944	12,000	—	66,944	9,000	—	—	—	—
Foreign exchange derivatives	**239,288**	**39,451**	**1,095**	**279,834**	**273,516**	**3,306**	**4,440**	**3,077**	**4,410**
OTC products									
Foreign exchange forwards	167,785	33,697	1,053	202,535	212,935	2,450	3,579	2,606	3,800
Foreign exchange options									
- purchased	28,388	2,105	21	30,514	25,177	277	274	171	163
- written	32,440	3,649	21	36,110	29,104	240	264	300	447
Other foreign ex-change derivatives	10,658	—	—	10,658	6,275	339	323	—	—
Exchange-traded products									
Foreign exchange futures	17	—	—	17	25	—	—	—	—
Foreign exchange options	—	—	—	—	—	—	—	—	—
Cross-currency swaps	**39,612**	**102,057**	**56,937**	**198,606**	**214,365**	**4,604**	**7,076**	**6,227**	**8,859**
Equity/index derivatives	**95,227**	**55,483**	**6,724**	**157,434**	**212,174**	**6,456**	**8,167**	**5,141**	**6,002**
OTC products									
Equity/index swaps	2,118	9,702	2,219	14,039	27,223	791	2,181	265	359
Equity/index options									
- purchased	2,641	2,872	846	6,359	12,008	236	532	4	110
- written	18,052	7,927	2,321	28,300	55,257	372	358	588	909
Other equity/index derivatives	29,781	828	24	30,633	19,511	2,556	1,946	35	39
Exchange-traded products									
Equity/index futures	14,471	5,067	1,211	20,749	28,700	—	—	—	—
Equity/index options	27,342	28,678	90	56,110	67,399	2,501	3,150	4,249	4,585
Equity swaps	822	409	13	1,244	2,076	—	—	—	—
Credit derivatives[1]	**1,200**	**10,966**	**261**	**12,427**	**53,628**	**185**	**256**	**203**	**564**
Other transactions	**31,344**	**14,228**	**354**	**45,926**	**58,900**	**2,369**	**4,139**	**1,272**	**3,675**
HVB Group	**3,265,234**	**2,874,846**	**2,366,797**	**8,506,877**	**7,688,588**	**233,033**	**308,263**	**229,387**	**305,255**

1 For details of credit derivatives, please see the tables “Credit derivatives” and “Credit derivatives by reference asset” below.

Derivative transactions with a residual maturity of up to three months accounted for a nominal total amount of €1,197,466 million as at 31 December 2023 (of which credit derivatives on a pro-rata basis: €214 million).

Risk Report (Continued)

Derivative transactions by counterparty type

€ millions	FAIR VALUE POSITIVE 2023	FAIR VALUE POSITIVE 2022	FAIR VALUE NEGATIVE 2023	FAIR VALUE NEGATIVE 2022
Central governments and central banks	3,572	3,647	1,150	1,291
Banks	124,100	163,379	123,587	163,480
Financial institutions	100,445	134,680	100,946	134,187
Other companies and private individuals	4,916	6,557	3,704	6,297
HVB Group	**233,033**	**308,263**	**229,387**	**305,255**

Credit derivatives

	NOMINAL AMOUNT					FAIR VALUE			
	RESIDUAL MATURITY			TOTAL		RESIDUAL MATURITY		TOTAL	
€ millions	UP TO 1 YEAR	MORE THAN 1 TO 5 YEARS	MORE THAN 5 YEARS	2023	2022	2023	2022	2023	2022
Banking book	**300**	**485**	**43**	**828**	**889**	**—**	**4**	**1**	**—**
Protection buyer									
Credit default swaps	50	10	—	60	120	—	—	—	—
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	250	466	43	759	762	—	4	1	—
Protection seller									
Credit default swaps	—	—	—	—	—	—	—	—	—
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	9	—	9	7	—	—	—	—
Trading book	**901**	**10,480**	**218**	**11,599**	**52,739**	**185**	**252**	**202**	**564**
Protection buyer									
Credit default swaps	223	5,246	—	5,469	25,570	—	11	183	233
Total return swaps	68	50	—	118	1,448	—	1	15	267
Credit-linked notes	131	335	58	524	570	14	7	2	2
Protection seller									
Credit default swaps	321	4,567	134	5,023	24,546	170	233	1	20
Total return swaps	—	—	—	—	128	—	—	—	40
Credit-linked notes	158	282	26	465	477	1	—	1	2
HVB Group	**1,201**	**10,965**	**261**	**12,427**	**53,628**	**185**	**256**	**203**	**564**

Credit derivatives by reference asset

€ millions	NOMINAL AMOUNT				
	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT-LINKED NOTES	TOTAL 2023	TOTAL 2022
Public sector bonds	62	—	31	93	355
Corporate bonds	10,269	118	968	11,355	49,798
Equities	—	—	—	—	—
Other assets	221	—	758	979	3,475
HVB Group	**10,552**	**118**	**1,757**	**12,427**	**53,628**

Single-name credit derivatives make up 18.6% of the total; multi-name credit derivatives, relating notably to baskets or indices, account for a share of 81.4%.

Stress tests
By carrying out stress tests in the credit portfolio, credit risk managers obtain information on a quarterly basis about the possible consequences of a negative change in the underlying economic conditions in addition to the monthly analysis of the real portfolio development. The focus here is on the risk metrics of risk-weighted assets, expected loss and economic capital, and the changes in the portfolio quality. Ad hoc stress tests, inverse stress tests and sensitivity analyses are carried out alongside the stress tests based on macroeconomic scenarios (results of which are included in the cross-risk-type stress test calculations, among others).

2 Market risk

Categories
We define interest rate risk as the risk of values changing on account of fluctuations in interest rates.

Foreign currency risk arises from fluctuations in exchange rates.

Stock and commodity risk is defined as the risk arising from changing rates on the stock and/or commodity markets.

We define the credit spread as the premium on the interest rate compared with a risk-free investment. Fluctuations in the credit spread give rise to credit spread risk. The credit spread risk refers to the fluctuation of the credit spread resulting from spread changes and from a potential default or a change of rating.

The risk that results in particular from changes in volatilities is included in option risk.

Risk Report (Continued)

Strategy
Market risk essentially arises in the Corporates operating segment. As was already the case in previous years, the focus in 2023 was on customer transactions.

One part of the market risk is entailed in trading books while the other part – mainly invested in interest-bearing securities – lies in strategic investments or in liquidity reserve portfolios. All positions exposed to market risk are subject to corresponding limits.

Limit system
All market risk-bearing transactions of HVB Group recognised at fair value are aggregated every day to form value-at-risk (VaR) metrics and set against the risk limits for internal control purposes.

In accordance with the 2023 risk strategy, the existing framework for managing market risks has been confirmed. The main purpose of this new framework is to focus on the fluctuation of the values in profit and loss accounting. VaR limits are set for items recognised at fair value through profit or loss (FVTPL) and for items recognised at fair value through other comprehensive income (FVOCI). The risk limits are approved annually by the Management Board of HVB and adjusted as required. Both groups of limits are equally binding and compliance with them is equally enforceable.

When the 2023 risk strategy was adopted, the FVTPL limit for HVB Group was set at €49 million and the FVOCI limit at €20 million.

Monitoring of the regulatory metrics (stressed VaR) and incremental risk charge (IRC) to be used additionally for the internal market risk model is ensured by setting limits for the risk values that are reported on a weekly basis.

Alongside management using the VaR approach, the risk positions of key units are restricted by an additional bundle of granular limits. These limits relate to sensitivities, stress test results and nominal volumes in various risk classes.

Measurement
The VaR shows the maximum expected loss caused by market price fluctuations that with a certain probability (confidence level) will not be exceeded over a given period. We use a confidence level of 99.00% and a holding period of one day for internal risk reports, management and risk limits.

We use a historical simulation to calculate the VaR. This method makes it possible to calculate the VaR without having to make any fundamental assumptions regarding the statistical distribution of the movements in the portfolio value. It encompasses the generation of the hypothetical distribution of earnings (gains and losses) from a portfolio of financial instruments directly using the historical daily market price fluctuations of the last 250 days.

HVB Group has defined several further market risk metrics under the current CRR rules for risk management as well as the VaR:

– The stressed VaR is calculated in the same way as the VaR; however, the associated 12-month observation period is selected in which the most significant negative market changes for HVB's trading portfolio have occurred. The amount calculated for the regulatory report relates to a holding period of ten days and a confidence level of 99.00%.
– The incremental risk charge (IRC) for credit-risk-sensitive positions is the internal approach used to determine the specific risks (specific price risk for net interest positions). This includes credit default risk and migration risk, meaning that both the change in ratings (migration) and the potential default on a credit product are taken into account. The calculated amount for both regulatory and internal reporting relates to a holding period of one year and a confidence level of 99.90%.
– In addition, further risks not taken account of in the internal market risk model are covered by the regulatory standard approach. This essentially relates to the specific risk entailed in securitisations and risk positions in the form of units in undertakings for collective investment (UCI) and risks arising from shares and indices caused by implicit fluctuations in the repo rate.
– Based on the CRR regulations, we calculate risks with regard to the credit valuation adjustment (CVA). The CVA risk shows the risk of losses in value based on changes in the expected counterparty default risk for all relevant OTC derivatives under CRR. We use our own internal model to calculate the vast majority of the CVA. For the regulatory report, the internal model calculates both the CVA VaR and the stressed CVA VaR on the basis of a 10-day holding period and a confidence level of 99.00%.

Monitoring and controlling

The market risk positions recognised at fair value are monitored using a hierarchical limit system that restricts the potential loss from market risk. This involves restricting the VaR totals from FVTPL and FVOCI positions by setting appropriate limits.

The VaR figures are reported daily along with the limit utilisation and the profit and loss figures (P/L) to the Management Board member responsible and the persons responsible in the Corporates operating segment. Whenever limits are exceeded, an escalation process is triggered immediately and the reduction of the positions in question monitored.

The Market Risk Management department has direct access to the front-office systems used in trading operations. The monitoring of trading activities comprises prompt allocation to counterparty and market risk limits and detailed validation and coordination of the P/L on the following day. In this context, both the daily changes in the market price risk profile and the P/L generated from new business are calculated.

In addition to the daily reports, the management is informed on a weekly and monthly basis about the results of the risk analysis, including the results of back-testing and stress tests as well as sensitivity ratios.

Risk Report (Continued)

HVB Group calculates economic capital on the basis of the assumption that operations will continue (continuity of operations). To calculate and allocate the economic capital requirements for market risk, the hypothetical distribution used to determine the VaR is based on an observation period of 500 trading days, in which connection only interest rate movements are taken into account for positions carried at cost. Any hedge effect of the model book for own funds is not included. The results from the credit valuation adjustment (CVA) and funding valuation adjustment (FVA) risk are added to this hypothetical distribution, whereby the FVA risk is derived from the expected future funding costs of derivative transactions. Furthermore, market risks are also added that arise from the Incremental Default Risk Charge (IDRC), which in contrast to the regulatory IRC approach only takes account of issuer default, the market risk standard approach and add-ons, in particular for risks from gap options, share repo rates and behavioural models. All risks, with the exception of the add-ons, are scaled accordingly to obtain a holding period of one year and a confidence level of 99.90%.

The regulatory capital requirement for market risk encompasses the VaR and stressed VaR for, in each case, a 10-day holding period together with the IRC and the market risk standard approach. The CVA risk is also taken into account. When calculating the capital requirement, the individual risk metrics are aggregated by regulatory averages, maximum calculation and scaling.

Quantification and specification

The economic capital for market risk at HVB Group, without taking account of diversification effects between risk types, amounts to €2,975 million (31 December 2022: €3,857 million). The decline in economic capital is largely due to the behavioural risk model it contains, which is significantly lower, mainly due to a recalibration. Compared to the previous year the contribution from the model for demand and savings deposits is sharply lower. This is the result of the declining trend in deposit volumes, their interest rate elasticity and, in particular, a lower uncertainty in determining them.

The following table shows the aggregated market risk for internal risk controlling at HVB Group in a year-on-year comparison. Most of the market risk arises from positions of the Corporates operating segment of HVB Group.

Market risk of HVB Group (VaR, 99.00% confidence level, one-day holding period)

	MARKET RISK OF POSITIONS RECOGNISED AT FVTPL			MARKET RISK OF POSITIONS RECOGNISED AT FVTOCI		
	AVERAGE	PERIOD END		AVERAGE	PERIOD END	
€ millions	**2023**	**31/12/2023**	**31/12/2022**	**2023**	**31/12/2023**	**31/12/2022**
Credit spread risk	5.2	3.3	5.4	8.7	7.1	9.1
Interest rate positions	5.9	3.8	9.6	8.5	11.0	3.0
Foreign exchange positions	1.8	1.1	3.9	0.1	0.1	0.4
Equity/index positions[1]	2.7	1.3	13.8	—	—	—
Commodity risk	4.0	0.9	13.8	—	—	—
HVB Group[1]	**8.2**	**7.6**	**31.5**	**8.0**	**8.9**	**7.9**

1 Because of the diversification effects between the risk categories. the total risk is less than the sum of the individual risks.

The decrease in market risk was caused by the reduction of securities portfolios as well as by a methodological improvement in the risk calculation in the commodity sector.

The regulatory capital requirements for the quarter-ends of the previous year are described below. broken down by the relevant risk metrics.

Regulatory capital requirements of HVB Group

€ millions	31/12/2023	30/9/2023	30/6/2023	31/3/2023	31/12/2022
Value at risk	49	65	79	82	160
Stressed value at risk	102	118	118	135	239
Incremental risk charge	85	79	93	82	87
Market risk standard approach	35	32	32	40	47
CVA value at risk	12	15	16	13	14
Stressed CVA value at risk	31	30	30	33	37
CVA standard approach	32	33	38	34	34

Regulatory back-testing of the internal model at HVB

The forecasting quality of the VaR measurement method is reviewed by means of daily back-testing that compares the computed regulatory VaR figures with the changes in the hypothetical portfolio value and additionally with the actual profit/loss. Reportable back-testing outliers occurred in the last 250 days. On two days the hypothetical loss was greater than the VaR figure; furthermore, on three days the actual daily loss was greater than the forecast VAR figure.

In addition to back-testing. further methods are used to check the quality of the model. These involve analysing the risk factors used and adjusting them as required. Risks that cannot be adequately modelled are also monitored and limits set for them if they are material. Furthermore. the suitability of the modelling of the UniCredit risk model used throughout the Group is validated by the “Group Internal Validation” unit.

Market liquidity risk

Market liquidity risk relates to the risk that the Bank will suffer losses due to the disposal of assets that can only be liquidated on the market at a discount. In an extreme case, HVB Group may not be able to sell such an asset, as the market does not offer enough liquidity, or the Bank holds a position that is too large relative to market turnover. The CRO organisation is responsible for managing market liquidity risk and conducts advanced market liquidity analyses. These uncertainties in the amount of €34 million are taken into account in the income statement in the form of valuation adjustments and in capital withdrawals via additional valuation adjustments of €61 million.

Stress tests

In addition to calculating the VaR and the other risk metrics, we conduct stress tests on a monthly basis to determine the potential losses in our market risk positions resulting from extreme market movements and extraordinary events. The scenarios we examine range from large movements in interest rates, currency and equity markets through to disruptions in the underlying volatilities. Further scenarios are also considered for HVB Group, such as a widening of credit spreads. We also analyse macroeconomic stress test scenarios based on real market upheavals in the past (historical stress tests) or current threats (hypothetical stress tests).

Risk Report (Continued)

Interest rate risk in the banking book
The interest rate risk in the banking book describes the risk relating to the Bank's capital and income caused by changes in interest rates. The strategy of the interest rate risk in the banking book aims to reduce fluctuations in net interest income as a result of interest rate movements over several years by hedging deposits and capital as well as early mortgage loan repayments in line with internal models. Parameters are based on statistical analyses. Market risk also includes the behavioural model risk, which represents the statistical uncertainty involved in the model assumptions for sight and savings deposits as well as the early repayment of mortgage loans.

HVB Group measures and monitors interest rate risk in terms of the change in the economic value as well as the income of the Bank. In this context, consistent methods and models as well as limits or thresholds are ensured for the sensitivity of net interest and the present value. Interest rate risk exposure from commercial banking transactions is managed and hedged by the Treasury department. The market risk of the Treasury department is monitored on a daily basis. Present value-based measurement shows the effects of fluctuations in the interest rate on the economic value of assets and liabilities as a relevant risk measure. The absolute change in present value and the coefficients from the change in present value and regulatory own funds are calculated on a monthly basis, taking into account the supervisory requirements, in the event of a 200bps increase or a 200bps decrease in interest rates. In addition, six further interest rate scenarios are calculated as early warning indicators, in which, however, the changes in present value are considered in relation to the core capital. In December 2023, the 200bps increase in interest rates and the parallel shift upwards as an early warning indicator resulted in the greatest negative changes in present value. The interest rate scenarios stated are calculated according to the BaFin Circular 6/2019 (BA) on interest rate risk in the banking book. The evaluations are carried out as required without taking account of the hedge effect from the model book for own funds from a regulatory perspective. In accordance with the European Banking Authority, additional modified model assumptions have been included in the calculation of sight and savings deposits.

Information on interest rate risk in the banking book

	31/12/2023		31/12/2022	
	€ millions	**in %**	**€ millions**	**in %**
+ 200 basis points	(1,796)	(9.5)	(1,954)	(10.2)
- 200 basis points	816	4.3	906	4.7

HVB Group is well below the specified 20% mark, above which the banking supervisory authorities consider a bank to have increased interest rate risk, and below the 15% mark, which is seen as an early warning indicator. These figures include HVB's positions as well as the positions of the material Group companies, customer margins are not included.

In addition to the present value approach, a simulation of net interest in the banking book is performed for HVB Group on a monthly basis. This analysis focuses on the impact that changes in interest rates have on net interest income compared with the benchmark scenario over a defined time horizon. The scenarios are limited internally with parallel shifts in the yield curve by 25bps to 100bps upwards (parallel upwards) or downwards (parallel downwards), with the yield curve shifted by 50bps in EUR in each case. This means that yield shifts were halved in EUR in internally limited scenarios compared with the previous year. Assumptions regarding the elasticity of sight and savings deposits are also taken into account. Depending on the contractual agreement with the customer, a floor of 0% could be employed for commercial banking products. In such a case, the interest rate shock downwards would not be fully applied. The simulation is calculated based on the assumption that the balance remains constant. The sensitivity of income (NII sensitivity) is then obtained from the resulting changes in income in relation to the planned net interest income (NII budget) for the current financial year. The results are below the internal early warning indicator of minus 12.0%.

Effects of interest rate changes on net interest

	31/12/2023		31/12/2022	
	€ millions	in %	€ millions	in %
Parallel upwards	50	1.8	(195)	(8.5)
Parallel downwards	(50)	(1.8)	74	3.2

The changes in results compared with the previous year can be explained by the changed positions and the new interest scenarios.

Furthermore, additional stress test scenarios are considered to estimate the basis risk (resulting from the imperfect correlation in interest rate benchmarks for different instruments and products) and the effects of nonparallel shocks.

3 Liquidity risk

Liquidity risk consists of the following categories:
– intraday/ operational liquidity risk
– short-term liquidity risk
– structural liquidity risk (funding risk)
– contingency liquidity risk
– market liquidity risk

Categories

Intraday/operational liquidity risk
Intraday operational liquidity risk arises when a financial institution cannot meet its current day-to-day payment obligations (payment obligations within one trading day) from its current incoming and outgoing payments, hence becoming technically insolvent. This can be considered a special type of short-term liquidity risk. An intraday cushion is set up as part of the short-term liquidity cushion with a view to balancing the intraday liquidity requirement and covering unforeseen payment obligations.

Short-term liquidity risk
Short-term liquidity risk relates to the risk of a discrepancy in the amount and/or maturity of incoming and outgoing payments in the short run (one year or less).

Structural liquidity risk
The structural liquidity risk (funding risk) is defined as the risk of not being able to raise the necessary refinancing funds at an appropriate ratio between medium- to long-term assets and liabilities (over one year), at acceptable prices and in a stable and sustainable manner without adversely affecting the Bank's day-to-day operations or financial position. It could potentially have an impact on the funding costs (own credit and market funding spread) and thus on the future earnings of the company.

Risk Report (Continued)

Contingency liquidity risk
Contingency liquidity risk refers to a liquidity crisis with a high impact but low probability of occurrence. In this case there is a contingency process that can be effectively activated in the event of a crisis and follows an approved procedure.

Market liquidity risk
Information on the market liquidity risk is provided in the section entitled "Market risk".

Strategy
Liquidity management at HVB Group is divided into short-term liquidity management (one year or less) and long-term liquidity management (more than one year). Risk drivers that may be the cause of potential liquidity outflows have been identified for the various segments.

Furthermore, various dimensions of liquidity risk management have been defined to which appropriate instruments and controlling mechanisms have been assigned depending on the type of risk involved.

The risk appetite is defined with regard to liquidity risk on the basis of the business activities and taking into account risk sources and risk drivers. This forms the foundation for the management and limit mechanisms, such as liquidity reports, projections and plans, and the definition of liquidity cushions to be maintained for unexpected outflows of liquidity during the day. The result is the specification of limits, triggers and a minimum survival period that matches the risk appetite. The specific limits are specified annually during the "Risk Appetite Framework" process for the various, short-term and structural liquidity ratios. In each case these must be considered as strict conditions for overall bank management with a distinction between regulatory and economic ratios. In the case of regulatory ratios the limits are defined with a sufficient buffer to the minimum legal requirements in order to ensure a sufficient response time in the event of potential negative developments and allow the timely introduction of corresponding steering measures.

Limit system
A limit has been set for intraday/operational liquidity risk as part of short-term liquidity risk by implementing a minimum balance to be observed during the day, by means of which liquidity is maintained to cover unforeseeable outflows (intraday liquidity cushion).

For the management of short-term liquidity risk, we have put in place a cash-flow-oriented limit system that presents the relevant balances within HVB Group per working day and limits the positions appropriately.

The difference between the calculated potential liquidity requirement and the existing liquidity reserves is limited.

Funding risk or structural liquidity risk is restricted by defining a limit for the ratio of liabilities to assets.

The effects arising from the change in funding spreads are to a very large extent taken into account by limiting funding risk. In addition, the internal transfer prices for the lending and deposit-taking activities are continually reviewed for appropriateness and regularly adjusted to reflect the market situation.

Reduction
Among other things, specific processes, the implementation of an early warning system complete with early warning indicators and a limit system as well as the management of highly liquid assets made available as collateral serve to reduce the liquidity risk.

Measurement
Short-term liquidity risk
To measure short-term liquidity risk, cash flow profiles are produced on a daily basis. The resulting balances are compared with the available liquidity reserves, which consist primarily of the available highly liquid securities eligible at all times as collateral for central bank borrowings. The cumulative balance of the above-named components is backed with limits for all maturity buckets of up to three months for the relevant units of HVB Group.

The aggregate amount for the three-month maturity bucket is published in the Risk Report for short-term liquidity risk as the relevant figure for managing the Bank’s liquidity risk.

Furthermore, stress-test scenarios based on the liquidity profiles of the HVB Group units are simulated at regular intervals and the impact on liquidity is calculated. The corresponding stress-test scenarios take account of both company-specific influences (e.g. potential HVB Group-specific incidents) and external factors (e.g. disruptions in global financial markets), as well as a combination of company-specific and external factors (e.g. the scenario demanded under the MaRisk rules). A time horizon of up to two months is defined for the individual stress-test scenarios, during which the available liquidity reserves are expected to exceed the simulated outflows of liquidity. In addition, the defined early warning indicators and relevant concentration risks are determined and monitored at regular intervals. This ensures that countermeasures can be initiated promptly, if required.

Calculating the liquidity coverage ratio (LCR) is intended to ensure that an institution is able to meet its short-term payment obligations under the assumption of an acute stress test scenario over a period of 30 calendar days.

Structural liquidity risk
To measure structural liquidity risk (funding risk), the long-term funding requirements based on the expected business development are determined and updated in a coordinated process. The long-term funding requirements, which are used to set the funding targets and are presented to the Financial and Credit Risk Committee in the context of a financial risk session, take into account the assets and liabilities falling due in the planning period. The key assumptions underlying the risk measurement methods are reviewed on a regular basis to assess their appropriateness. The net stable funding ratio (NSFR) is used as the key indicator for measuring funding risk according to CRR II requirements. Furthermore, the funding risk is calculated using an internal ratio, the “Structural Liquidity Ratio (SLR)”, for the time horizon greater than one year and greater than three years. These ratios usually take into account the contractual cash flows of assets and liabilities, or internal models for non-terminated products, such as sight deposits and savings deposits. In addition, both the loan-to-deposit ratio and the funding gap are recorded.

Risk Report (Continued)

Monitoring and controlling

Short-term liquidity risk

The task of monitoring the short-term liquidity situation at HVB Group has been entrusted to the ALM & Funding unit in the Finance organisation. This essentially involves analysing and controlling the short-term liquidity profiles within the scope of the limits defined and monitored by the CRO organisation on a daily basis. The monitoring and controlling of intraday liquidity risk are essentially performed on the basis of various minimum balances that must be observed during the day and at the beginning of the day. These are set against the current volumes in the relevant accounts on a regular basis and monitored. Responsibility for monitoring and controlling developments on the respective local markets rests with the local Treasury units, which report to the ALM & Funding unit as and when necessary.

For short-term liquidity risk, moreover, monthly stress analyses based on various scenarios allow us to make projections on the impact of sudden disruptions on the liquidity position, enabling us to take the necessary management measures as early as possible. Units in the CRO organisation are responsible for monitoring and analysing the stress-test scenarios and the early warning indicators, while the Finance organisation has been tasked with monitoring and analysing the portfolio of freely disposable securities eligible as collateral for central bank borrowings that can be used at short notice to cover unexpected liquidity outflows as well as concentration risk. Additional market liquidity analyses are carried out by the CRO organisation during the stress tests.

Structural liquidity risk

The task of monitoring the structural liquidity situation at HVB Group has similarly been entrusted to the ALM & Funding unit in the Finance organisation. This essentially involves analysing and controlling the long-term mismatches in the maturities of assets and liabilities within the scope of the defined limits and also specified funding targets. Compliance with the long-term funding ratios is monitored on a monthly basis. The structural liquidity risk (funding risk) of HVB Group is broken down by product, market and investor group. The front-office units implement the volume and product parameters derived from the funding targets cost-efficiently upon consultation with the ALM & Funding unit. This activity is similarly supported by a liquidity cost allocation mechanism – known as Funds Transfer Pricing (FTP) – for all significant business activities, the principles of which are defined in the FTP policy.

The Financial and Credit Risk Committee and the Executive Board are regularly informed about the current liquidity and funding situation. A contingency plan is in place to allow the impact of potential liquidity crises to be managed. This plan describes and regulates the distribution of responsibilities, internal reporting requirements, decision-making powers and potential measures.

The rules and regulations governing liquidity management are defined in a liquidity policy adopted by the Executive Board of HVB. The key points contained in the policy relate to the ability to satisfy financial obligations at all times in line with the defined risk appetite. Its objectives include the following: optimising the projected cash flows, restricting the cumulative short-term liquidity differences, performing stress tests at regular intervals and restricting the long-term maturity mismatches between the liabilities side and the assets side.

The liquidity policy and contingency plan together with supplementary remarks are updated at regular intervals by the CRO organisation with support from the Finance organisation. The liquidity policy is implemented by the operational business units and coordinated and monitored for the relevant units of HVB Group by the Financial Risk unit in the CRO organisation.

Quantification and specification

Short-term liquidity risk

Within the framework of our limit system, we showed an overall positive balance of short-term liquidity risk of €43.4 billion at HVB Group for the three-month maturity bucket as at 31 December 2023 (31 December 2022: €54.1 billion). The holding of available securities eligible as collateral for central bank borrowings that can be employed on the next banking day to compensate for unexpected outflows of liquidity, increased to €41.5 billion at the end of 2023 (31 December 2022: €18.8 billion), mainly due to the long-term refinancing business with Deutsche Bundesbank during the year.

Institution-specific, market-wide and combined scenarios are included in the calculation of our stress tests. The calculations at the end of 2023 showed that the available liquidity reserves will cover our funding requirements beyond the minimum period required in each case.

The liquidity coverage ratio (LCR) of at least 100% to ensure that an institution is able to meet its short-term payment obligations was met throughout the course of 2023. The weighted average liquidity cover ratio according to the EU directive on prudential requirements for credit institutions and investment firms is at 148% for the twelve-month average at the end of 2023 (31 December 2022: 142%). The following table shows the individual components of the weighted liquidity cover ratio.

	Adjusted total value (weighted)	
Liquidity cover ratio components	**31/12/2023**	**31/12/2022**
Number of data points used in calculating the average values (weighted)	12	12
High quality liquid assets (HQLA) in € billions	61,9	66,5
Total net average outflows in € billions	41,8	46,7
Liquidity cover ratio (LCR) in %	148	142

Structural liquidity risk

The structural liquidity risk (funding risk) of HVB Group was again low in 2023 thanks to our broad funding base in terms of products, markets and investor groups. This ensured that we were able to obtain adequate funding for our lending operations in terms of volume and maturity within the framework of our limit system. Until the end of December 2023, HVB Group provided a funding of €7.6 billion on a long-term basis (31 December 2022: €8.5 billion); our Pfandbriefe continue to be an important funding instrument, in 2023 a volume of €3.9 billion (31 December 2022: €3.9 billion) was funded externally on the capital market. For the NSFR, a minimum regulatory rate of 100% has been in place since June 21. At the end of 2023, the HVB ratios based on the CRR II requirements was at 118.5% (31 December 2022 at 115.6%), the internal ratios “structural liquidity ratio for more than one year and more than three years” have been above 100% throughout the course of 2023.

Risk Report (Continued)

Breakdown of sources of funding of HVB Group	in %
Deposits from customers	56.6
Deposits from banks	10.2
Debt securities (including Pfandbriefe)	12.0
Repos[1]	1.2
Equity	7.6
Central banks	8.4
Financial liabilities held for trading[2]	2.3
Other	(0.1)
Financial assets at fair value through profit or loss	1.9

1 Repos from the items “Financial liabilities held for trading”, “Deposits from customers” and “Deposits from banks".
2 Without the item “Negative fair values arising from derivative financial instruments".

Stress tests
Stress analyses are carried out at regular intervals, enabling us to make projections on the impact of sudden disruptions to our liquidity position on the basis of various scenarios so that we can initiate appropriate management measures as early as possible.

We include Bank-specific (for example outflows on unsecured funding, low funding plan fulfilment rates, no stress haircuts on the bond position), market-wide (for example outflows on unsecured funding, outflows due to margin requirements from derivatives transactions, stress haircuts on the bond position) and combined scenarios when conducting our stress tests. The calculations at the end of 2023 showed that the available liquidity reserves were sufficient to cover the funding requirements over the minimum period demanded.

4 Operational risk

Strategy
The risk strategy pursues the goal of reducing operational risk (OpRisk) to a reasonable level from a profitability perspective and taking the defined risk appetite into account. The primary aim is to reduce or avoid significant losses by taking appropriate measures and also helps to generate a sustainable improvement in earnings.

To make the risk strategy more specific, Bank-wide and business-segment-specific action areas are defined on the basis of influencing factors and strategic risk areas relevant to operational risk.

Limit system
Operational risk is part of the internal capital, with a limit set for HVB Group accordingly.

Reduction
HVB Group has a group-wide organisational structure for operational risk management. The individual business areas of HVB and each subsidiary of HVB Group are responsible for identifying, analysing and managing operational risk.

Loss events that have occurred and significant risks are reported to the Executive Board at regular intervals. On a local level, operational risk managers report losses and relevant risks to their senior management on a quarterly or half-yearly basis.

Information technology (IT)
UniCredit S.p.A. provides most IT services for HVB Group. IT services needed to meet special requirements of HVB subsidiaries are provided by additional selected providers. In this connection, both HVB and HVB Group adhere to a control framework set by the UniCredit corporate group in order to monitor and manage all significant IT and cyber risks adequately within the ICT management processes, among other things. Any such outsourcing of activities to further providers is subject to clear IT compliance guidelines and will also be monitored in the context of the overarching control processes.

Business continuity management, IT service continuity management and crisis management
The business continuity, IT service continuity and crisis management function demonstrated its effectiveness and appropriateness by successfully mastering critical situations. In addition, the precautions taken for crisis and emergency situations are adapted constantly to accommodate new threats. In principle, responsibility for managing these risks lies with the person responsible for the process and the associated senior management. Comprehensive monitoring and reporting of the residual risks identified is carried out by the Business Continuity & Resilience unit.

Legal risk and compliance risk
Legal risk as a subcategory of operational risk is defined as the possibility of losses, damage or costs caused by lack of knowledge of the current legal situation or by a delay in reacting to changes in the law, insufficient and/or inadequate application of the law or unforeseeable changes to case law and/or the interpretation of the law by the authorities.

The Legal department is responsible for managing legal risk and provides advice on legal matters to all units of HVB. Excluded from this are tax law, labour law, data protection and the legal areas covered by compliance, which are overseen by the respective functional departments.

Compliance risk is defined as an existing or future risk to income or capital as a consequence of infringements of or non-compliance with laws, regulations, statutory provisions, agreements, mandatory practices or ethical standards. This may result in fines, compensation for damage and/or contracts being rendered null and void in addition to damaging a bank's reputation.

Risk Report (Continued)

The management of compliance risk is normally a task of the Bank’s Executive Board. Pursuant to Section 25a of the German Banking Act (Kreditwesengesetz – KWG), it is required to ensure that a proper business organisation is in place, encompassing in particular effective risk management, including an internal control system (ICS). Part of the ICS is the compliance function (second line of defence), which helps the Executive Board to manage compliance risk. In terms of the three lines of defence, however, the business units have the task (first line of defence) of knowing, managing and mitigating their own compliance risks.

The Minimum Requirements for Compliance (MaComp) and MaRisk both require a compliance function to be put into place. Both also contain rules on how such a compliance function should be structured. At HVB, both functions are combined in the Compliance unit in order to ensure a uniform approach. Anti-money laundering and fraud prevention as well as preventive measures against infringements of financial sanctions and embargos are also assigned to the Compliance unit. Comprehensive risk assessment is ensured by this approach. On account of its high degree of specialisation, tax compliance is managed and refined within the finance organisation exclusively by the Tax Affairs unit.

Legal risks
HVB and other companies belonging to HVB Group are involved in various legal proceedings. The following is a chronological summary of cases against HVB and other companies belonging to HVB Group, which individually or collectively in the respective subject areas have a value in dispute exceeding €50 million or are of substantial significance for HVB for other reasons.

In many cases, there is substantial uncertainty regarding the outcome of the proceedings and the amount of possible damages. These cases include criminal or administrative proceedings by the relevant authority and claims in which the petitioner has not specifically quantified the amounts in dispute. In all proceedings where a loss is considered likely, and it is possible to reliably estimate the amount of possible losses, provisions have been set up based on the circumstances and consistent with IFRS accounting principles applied by HVB Group. Whether and to what extent a provision has been set up in proceedings is not disclosed if the outcome of the proceedings could be affected by such disclosure.

VIP 4 Medienfonds
Various investors in Film & Entertainment VIP Medienfonds 4 GmbH & Co. KG to whom the Bank issued loans to finance their participation, brought legal proceedings against HVB. In the context of the conclusion of the loan agreements, the plaintiffs claim that the Bank provided inadequate disclosure about the fund structure and the related tax consequences. A settlement was reached with the vast majority of the plaintiffs. An outstanding final decision with respect to the question of HVB's liability for the prospectus in the proceeding pursuant to the Capital Markets Test Case Act (Kapitalanleger-Musterverfahrensgesetz) which is pending at Munich Higher Regional Court, will affect only a few pending cases.

Proceedings related to claims for withholding tax credits
On 31 July 2014 the Supervisory Board of HVB concluded its internal investigations into the so-called "cum-ex" transactions (the short selling of equities around dividend dates and claims for withholding tax credits on German share dividends) at HVB. In this context, criminal investigations have been conducted against current or former employees of HVB and HVB itself as an ancillary party by the Prosecutors in Frankfurt/Main, Cologne and Munich. With respect to HVB, all proceedings originally initiated by the aforesaid prosecution offices were finally closed with payment of a fine or the payment of a forfeiture.

In December 2018, in connection with an ongoing investigation against other financial institutions and former Bank employees, HVB was informed by the Cologne Prosecutor of the initiation of a new investigation in connection with an administrative offence regarding "cum-ex" transactions involving Exchange Traded Funds ("ETF"). In April 2019 these investigations were extended to so called ex/ex-transactions, in which an involvement of the Bank in the sourcing of cum/ex transactions of other market participants on the ex-day is suspected. The facts are being examined internally. HVB is cooperating with the authorities.

On 28 July 2021, the Federal Criminal Court (BGH) rendered a decision through which the principle criminal liability of cum/ex structures was determined the first time. With its decisions of 6 April 2022, 17 November 2022 and 20 September 2023 the BGH confirmed three criminal judgements in other cum-ex cases of the Regional Court of Bonn, thus further solidifying its case law. HVB is monitoring the development.

In June 2023, the Munich tax authorities completed a regular field audit of HVB for the years 2013 to 2016 which includes, among other things, a review of transactions in equities around the dividend record date (so called cum/cum transactions). During these years HVB performed, among other things, securities-lending transactions with different domestic counterparties which include, but are not limited to, different types of cum/cum transactions. It still remains to be clarified whether, and under which circumstances, tax credits can be obtained or taxes refunded with regard to different types of cum/cum transactions. Some of the taxes credited from the cum/cum transactions are currently not recognized for tax purposes by the tax audit. HVB appealed against the tax assessments for 2013 to 2015, which were amended based on the findings of the tax audit regarding cum/cum transactions. Moreover, with respect to cum/cum transactions in which the counterparty of HVB claimed tax credits in the past, it cannot be ruled out that HVB might be exposed to third party claims under civil law.

Claim in relation to collateral enforcement
In late 2019, a holding company of a German industrial group brought a claim against HVB, in its capacity as security agent for a group of noteholders and lenders, aiming at obtaining the annulment and/or damages in relation to an allegedly fraudulent collateral enforcement. The claimant has withdrawn the claim in 2023.

Risk Report (Continued)

Financial sanctions matters
Following the settlement in April 2019, the U.S. and New York Authorities require an annual external review regarding the evolution of the process implementation. In light of the request, in 2020, the Group appointed an external independent consultant. Following the interaction with the independent consultant and also considering the mandatory commitments towards the Authorities, HVB has implemented additional requirements and controls, about which the bank makes periodic reports to the Authorities. According to the positive outcomes of the reviews, the Federal Reserve has suspended the external independent consultant's review going forward.

Euro-denominated bonds issued by EU countries
On 31 January 2019 UniCredit S.p.A. and HVB received a Statement of Objections from the European Commission referring to the investigation by the European Commission of a suspected violation of antitrust rules in relation to European government bonds. The subject matter of the investigation extended to certain periods from 2007 to 2011 and included activities by HVB between September and November 2011. The European Commission concluded its investigation by issuance of its decision on 20 May 2021. The decision provides for the imposition of a fine of €69.4 million on the parent company UniCredit S.p.A and HVB. UniCredit S.p.A. and HVB contest the European Commission's findings and brought an action for the annulment of its decision before the General Court of the European Union on 30 July 2021.

On 11 June 2019, HVB and UniCredit Capital Markets LLC were named, among other financial institutions, as defendants in a putative class action already pending in the United States District Court for the Southern District of New York. The third amended class action complaint, filed on 3 December 2019, alleges a conspiracy among dealers of Euro-denominated bonds issued by European central banks to fix and manipulate the prices of those bonds, among other things by widening the bid-ask spreads they quoted to customers. The putative class consists of those who purchased or sold Euro-denominated bonds issued by European central banks in the US between 2007 and 2012. On 23 July 2020, the court granted motions to dismiss the third amended complaint by certain defendants, including HVB and UniCredit Capital Markets LLC, without prejudice. Plaintiffs filed their fourth amended class action complaint on 9 February 2021, repleading their claim against HVB and UniCredit Capital Markets LLC and other financial institutions. Like earlier pleadings, the fourth amended class action complaint does not include a quantification of damages claimed. On 14 March 2022, the court granted UniCredit Capital Markets LLC motion to dismiss while denying HVB's motion to dismiss. The court has since denied HVB's motion for reconsideration, HVB has answered the operative complaint, and discovery has commenced. On 25 September 2023, the court granted plaintiffs leave to file a fifth amended class action complaint, which plaintiffs did on 16 October 2023 and continued to name HVB among others (but not UniCredit Capital Markets LLC) as a defendant. HVB reached a settlement with the plaintiffs and the putative class in May 2023, and the court preliminarily approved that settlement on 16 May 2023. The court will consider final approval of the settlement at a hearing scheduled for 23 February 2024.

Claims in relation to a syndicated loan
HVB, together with several other financial institutions, has been named as a defendant in complaints filed by the judicial administrator and foreign representative of a Brazilian oil and gas conglomerate in July 2021 in the United States before the Southern District of New York court claiming damages in connection with the repayment of a syndicated loan for two oil drilling rigs in which HVB participated that defendants are alleged to have unlawfully obtained.

Claim in relation to interest rate swap
In December 2021 HVB was named as defendant in a case pertaining to an interest rate swap commenced by an Italian region before the Court of Bologna in Italy. HVB and the region settled the case in 2023.

Claims in relation to sanctions legislation
Two aircraft leasing companies filed lawsuits in March and April 2022 against HVB's foreign branch in London before a London court. The claims relate to payments arising under certain letters of credit, all of which are governed by English law. The disputes hinge on the interpretation of sanctions legislation and its effect on the letters of credit. After the trial, the required UK licences authorising payments under the letters of credit were granted and HVB London branch made payments of the principal under the letters of credit to the claimants in autumn 2022. In spring 2023, HVB London branch was nevertheless ordered to pay interest and legal costs. HVB London branch has been granted permission to appeal this decision. The substantive appeal will be heard in May 2024.

Claims in relation to guarantee payments and sanctions
In August 2023, HVB was named as a defendant in a lawsuit pertaining to guarantee claims totaling approx. €444 million commenced by a Russian energy company before a court in Saint Petersburg, Russia. HVB had issued part of a guarantee package in favour of the Russian company on behalf of a German guarantee client. The Russian company had drawn down the guarantees by making payment claims to HVB, which HVB could not fulfil under the applicable EU sanctions. The guarantees are governed by English law and contain an arbitration agreement providing for ICC arbitration seated in Paris. On 29 January 2024, the English Court of Appeal reversed an earlier decision denying a permanent anti-suit injunction (ASI) and granted a final ASI requiring the Russian company to immediately take all steps necessary to withdraw the Russian proceedings. On 12 February 2024, the UK Supreme Court granted the Russian company permission to appeal staying the effects of the permanent ASI, but continuing the prohibitory injunction preventing the Russian company from taking any steps to progress the Russian proceedings. A hearing before the Supreme Court is expected to take place in April. The Russian court has rejected HVB's jurisdictional defenses and scheduled the next hearing for the second quarter of 2024.

Measurement
The operational risk of HVB Group is calculated for HVB and its material subsidiaries – HVB Immobilien AG and UniCredit Leasing GmbH (together with subsidiaries) – using an internal model in accordance with the Advanced Measurement Approach (AMA model). The standard approach is applied for all other subsidiaries in the respective area of application.

The AMA model is based mainly on internal and external loss data. The process involves computing loss distributions for each model risk category. A model risk category is determined by combining the Basel loss event category and the product category of the loss event. Scenario data are used to complete the data for rare yet extreme events. The method used to aggregate the individual data sources is based on the Bayesian model and is applied to the loss distribution parameters for each model risk category.

Risk Report (Continued)

The VaR is determined using a Monte Carlo simulation. The VaRs of the individual model risk categories are modified to reflect internal control and business environment factors. In the aggregation, correlations between the model risk categories and risk-reducing measures, such as insurance policies, are taken into account.

In line with UniCredit's approach, operational risk capital is calculated based on the Advanced Measurement Approach (AMA) at the level of the UniCredit corporate group as a whole and then distributed as a first step to the subgroups (known as hubs), including HVB Group, and as a second step, to the AMA subsidiaries, using a risk-sensitive allocation mechanism.

The model was developed by UniCredit S.p.A. HVB checks the plausibility of the calculation results at regular intervals. The AMA model is validated on an annual basis to ensure that it is appropriate.

Stress tests

The impact of macroeconomic scenarios on operational risk is analysed within the scope of the cross-risk-type stress tests.

5 Other risks

In the section entitled “Other risks”, HVB Group collates the following types of quantifiable risk: real estate risk, business risk, pension risk, reputational risk, financial investment risk and model risk as well as the risk type strategic risk, which is described exclusively in qualitative terms. The risk arising from outsourcing activities and the sustainability risk are not treated as a separate risk type at HVB Group but are considered a cross-risk type and are consequently listed under other risks.

Real estate risk

A fundamental distinction is made in real estate risk between real estate required for operations (used by the Bank) and real estate that is not used for operations (not used by the Bank).

Real estate management ensures value- and cost-optimised management, the operation of the buildings and the fulfilment of the UniCredit Bank GmbH’s space requirements in terms of size, quality and cost optimisation. The longer-term orientation for real estate used by the Bank corresponds with the Bank’s strategy of preferring Bank-owned properties over rented properties for own use and making such properties available for the banking operations of HVB Group at market terms on a cost-optimised basis.

The main risks for the Bank-owned portfolio primarily stem from the development of the market value. The risk drivers are the future usage by the Bank, market rents, occupancy rate, required investment and the price development on the real estate market. ESG criteria are also becoming important factors for portfolio strategy, maintenance and investment decisions. The medium-term goal for the real estate portfolio not used by the Bank, on the other hand, is to realise the best possible value upon disposal of the portfolio; in this regard, the impact on both the income statement and the Bank’s other management instruments is crucial for the individual decisions. This tallies with the overarching strategy for dealing with real estate risk.

Real estate risk is managed overall on the basis of an internal capital limit for HVB Group. In addition, economic capital limits adjusted for diversification effects were allocated to the operating segments and the relevant subsidiaries for 2023 in the context of overall bank management. Based on these limits, HVB Group defined additional early warning indicators in the form of targets and triggers in order to identify in advance any overshooting.

To quantify real estate risk, the Bank uses an empirical Bayesian model (a group-wide real estate risk model) with a confidence level of 99.90%. This model applies an expected-shortfall approach which also takes account of the possible risk of extreme values (tail risk) (i.e. losses in excess of the VaR).

The economic capital for real estate risk is measured by the Integrated Risk (CRI3) unit and calculated by the Data & Intelligence (CDI3). The Credit Risk Control (CRI4) unit is responsible for reporting. In line with the risk strategy, quarterly risk reporting also includes a comparison of the actual values with the limits.

The economic capital for real estate risk at HVB Group, without taking account of diversification effects between the risk types and without the model risk cushion, amounts to €271 million at 31 December 2023 (31 December 2022: €291 million). The fully diversified economic capital for real estate risk at HVB Group stands at €138 million (31 December 2022: €129 million).

The risk figures relate to a portfolio valued at €2,368 million.

Breakdown of the real estate portfolio by type

	PORTFOLIO VALUE € millions		SHARE in %	
	2023	2022	2023	2022
Real estate used by the Bank	1,925	2,231	81.3	80.6
Real estate not used by the Bank	443	536	18.7	19.4
HVB Group	**2,368**	**2,767**	**100.0**	**100.0**

The decrease in the real estate portfolio compared with the end of 2022 is mainly due to a decline in market values.

The impact of macroeconomic scenarios on real estate risk is analysed within the scope of the cross-risk-type stress tests.

Business risk

The strategy for business risk is based on the direction of business over the medium term and is reflected in planning. As part of its general cost and income management, each business unit is responsible for the operational management of business risk.

Business risk is managed overall on the basis of an internal capital limit for HVB Group. Based on this limit, HVB Group has additionally defined early warning indicators in the form of targets and triggers in order to identify in advance any overshooting.

HVB Group uses a group-wide model to measure the economic capital used by business risks that is based on a time series model of the quarterly income. The economic capital requirement corresponds to the unexpected loss and is quantified using value-at-risk (VaR) metrics over a period of one year and a confidence level of 99.90%.

Risk Report (Continued)

The economic capital for the business risk is measured by the Integrated Risk (CRI3) unit and calculated by the Data & Intelligence (CDI3) unit. The Credit Risk Control (CRI4) unit is responsible for reporting. In line with the risk strategy, quarterly risk reporting also includes a comparison of the actual values with the limits.

The economic capital for HVB Group's business risk, without taking account of diversification effects between the risk types and without the model risk cushion, amounted to €291 million at 31 December 2023 (31 December 2022: €337 million). The fully diversified economic capital for HVB Group's business risk totals €188 million as at 31 December 2023 (31 December 2022: €215 million).

The impact of macroeconomic scenarios on business risk is analysed within the scope of the cross-risk-type stress tests.

Pension risk

In risk management, risks are calculated and monitored at regular intervals using a model devised specifically for pension risk. A risk figure is determined periodically using calculations based on changes in key risk parameters for both the various capital investments and the cash flows on the obligations side. A figure of €1,048 million was determined as at 31 December 2023 for the total pension risk of HVB Group (31 December 2022: €1,167 million). The decrease compared with year-end 2022 is primarily due to a lower assumed potential interest rate shock on pension obligations as a result of a decline in interest rates. The risk figure is incorporated in the calculation of the risk-taking capacity in the form of an additive component in market risk before aggregation as internal capital. In addition, the impact on pension risk is analysed at regular intervals as part of the cross-risk-type stress tests.

The direction of interest rates still appears to be the main driver of risks when determining the amount of recognised pension obligations. After the strong increase in 2022, yields declined in 2023 with significant year-on-year fluctuations during the year. The current level of interest rates makes it easier to generate returns on plan assets from the fixed-income securities segment. Despite the downward trend, inflation remained above the medium/long-term actuarial assumptions. This led to corresponding pension adjustments and an increase in obligations above the actuarial assumptions already taken into account. Funding has accordingly fallen slightly despite the good performance of the investments. Central banks seem determined to continue fighting inflation with key interest rates that remain fairly high. Inflation is expected to continue to decline slowly, which should result in the first key interest rate cuts over the course of the year. The comparatively high level of interest rates could, however, also affect the still weak economic development and, as a result, lead to an increase in volatility on the capital markets with potentially negative effects on the asset side, and particularly in equities. There is also a certain risk that inflation will remain more persistent and that central banks may stick to a restrictive monetary policy for even longer. The diverse geopolitical risks also contribute to a challenging environment.

Financial investment risk
The financial investment portfolio mainly consists of holdings in unlisted companies, equity derivatives and other fund shares (real estate funds and other closed-end funds). All the investments to be included in financial investment risk are either considered strategic and allocated to a business area or competence line, or deemed non-strategic and connected with the fundamental goal of reduction.

The risk from holdings in unlisted companies has been included under credit risk since September 2020. The following risk drivers are relevant for financial investment risk: the carrying amounts of investments and the related residual capital contribution liabilities and the macroeconomic situation. In addition, risks from hedge funds, private equity funds (including issuer risks from the trading book) and FX risks from the investment portfolio are included in the calculation of the market risk.

Breakdown of the financial investment portfolio

	PORTFOLIO VALUE € millions		SHARE in %	
	2023	2022	2023	2022
Private equity investments	10	10	3.9	4.0
Other investments[1]	239	227	96.1	96.0
HVB Group	**249**	**237**	**100.0**	**100.0**

1 Listed and unlisted investments.

The impact of macroeconomic scenarios on financial investment risk within credit risk is examined in the course of cross-risk-type stress tests.

Strategic risk
As a universal bank, HVB Group is a provider of banking and financial services with a focus on Germany. It offers a comprehensive range of banking and financial products and services to private and corporate clients, public institutions and international companies, was well as institutional clients. Therefore, HVB Group's profitability and risk profile are influenced in particular by the economic development in Germany and the development of international financial and capital markets. In this context, strategic risk results from management either not recognising early enough or not correctly assessing significant developments or trends in the Bank's environment. As a consequence, fundamental management decisions could, in retrospect, prove to be disadvantageous in terms of the Bank's long-term goals. In addition, some decisions may be difficult to reverse or cannot be reversed at all. In the worst case, this can negatively impact the profitability and risk profile of HVB Group.

Risk Report (Continued)

The following areas are currently classified as relevant for the occurrence of strategic risk:
- Economic environment – Geopolitical tensions, such as those caused by the Russia-Ukraine conflict, create economic uncertainties such as higher inflation or shortages in the energy supply that could have negative effects on the earnings situation of HVB Group.
- Strategic orientation of the business model of HVB Group – Delays in the required adjustments of business units could lead to imbalances in the earnings contributions of the business areas.
- Bank-specific risks – The intensification of competition in the financial sector could, for example, lead to further shifts in market shares.
- Regulatory and legal framework – Should HVB or one of its subsidiaries not fully comply with the regulatory requirements of the supervisory authorities, this could lead to sanctions by the competent supervisory authority.
- Rating of UniCredit Bank GmbH – A rating change downwards (downgrade) could make refinancing costs more expensive or have a negative impact on business opportunities as a counterparty in the interbank market or with rating-sensitive customers.

The strategic risk is not quantified as part of internal capital but is assessed qualitatively instead. This assessment is based on a traffic light system: low risk (green), increased risk (yellow) and high risk (red). Furthermore, the national and international environment in which HVB Group operates is continually monitored (for example, political, economic, regulatory or specific banking market conditions) and the Bank's own strategic positioning is continually reviewed.

Strategic risk is monitored by the Executive Board and its business managers and, if necessary, analysed in depth on an ad hoc basis. Any changes in the strategic parameters are discussed at Executive Board meetings, whereby alternative courses of action are derived and implemented as required. A dialogue with external experts (such as management consultants and independent auditors) regarding strategic issues and options at Executive Board level and below ensures the involvement of external experts' know-how.

Reputational risk
HVB and its most important subsidiaries apply a holistic approach to reputational risk management. This means that all significant new activities and transactions at the Bank are analysed with regard to reputational risk as a basic rule ("change-the-bank" approach) and individual units at the Bank are examined at regular intervals for latent reputational risk at the same time ("run-the-bank" approach).

Commercial transactions and new activities such as new product processes, outsourcing, projects and particular investments (such as special purpose vehicles) are included in the "change-the-bank" approach, as well as any other new activity as is appropriate. The employees responsible in each case are required to analyse the transactions/activities to identify any reputational risk, taking into account the existing guidelines. Once a reputational risk has been identified, the appropriate specialist departments are called in who will assess the reputational risk identified in terms of quality. The final decision based on the risk analysis and qualitative assessment is the responsibility of the Non-Financial Risk and Control Committee or the head of Non-Financial Risks.

Under the “run-the-bank” approach, the individual units of the Bank are examined at regular intervals for existing and/or latent reputational risk. For this purpose, senior management is interviewed about the current reputational risk. Senior managers then have the opportunity to review the reputational risk identified in their unit and add any further material reputational risks. Where it is possible and makes sense to do so, additional countermeasures are defined for the individual reputational risks.

Within the framework of the “run-the-bank” approach, the risk is classified in accordance with a three-tier system (traffic light logic). This involves determining the aggregate risk across two dimensions: impact on the income statement and probability of occurrence.

The individual business areas and central units are responsible for reputational risk management. Overall responsibility for monitoring rests with the Non-Financial Risks unit (CRO organisation). The Non-Financial Risks unit consolidates the results of senior management interviews and prepares a yearly RepRisk Report covering the greatest reputational risks at HVB.

In addition to the “change-the-bank” and the “run-the-bank” approach, UniCredit’s method for quantifying reputational risk was introduced at HVB Group in the first quarter of 2020. For the purposes of quantification, reputation risk is defined as the impact of “negative sentiment” in the opinion-forming media (press, television, online media) on UniCredit’s future profits generated by the reporting of an event that has a negative impact on the Bank’s reputation.

UniCredit’s method for quantifying reputational risk is based on measuring the semi-elasticity between the development of the Media Tonality Index (a measure whose development reflects changes in UniCredit’s reputation) and the development of the idiosyncratic portion of the expected profits. The economic capital for reputational risk is based on the value-at-risk (VaR) measure, which is calculated at a confidence level of 99.90% and is derived from the distribution of expected declines in profit.

The economic capital for reputational risk is calculated on a quarterly basis at UniCredit corporate group level and – based on the weighted “ratio of capital for the subsidiary’s operational risk to the capital for the UniCredit corporate group’s operational risk” – distributed between the subsidiaries of UniCredit corporate group.

The Non-Financial Risks unit checks the results obtained from calculating the economic capital for HVB Group’s reputational risk for plausibility on a quarterly basis. The method for the quantification of reputational risk is validated at regular intervals.

The impact on reputation risk stemming from a change in sentiment about UniCredit in the opinion-forming media is examined in the course of cross-risk-type stress tests. The extent of this change is determined by assessing the severity of the respective macroeconomic scenario.

Risk Report (Continued)

Model risk
Model risk is taken into account via a charge, which reflects the risk of model weaknesses due to data errors, inaccurate assumptions and incorrect methodology within the framework of ICAAP calculations. The estimation of this economic capital component is based on an internally developed methodology. The results of this methodology are converted into model risk percentages based on defined scoring functions and added to the risk types. A model risk percentage is also taken into account for the risk aggregation model, which aims to estimate the diversification benefit. In this case the relevant model risk percentage is applied directly to the diversification benefit. The model risk charge is also taken into account in the limitation of internal capital.

The model risk charge amounted to €160 million as at 31 December 2023 (31 December 2022: €210 million).

Sustainability risk
In addition to the “Social and Corporate Governance” component, HVB Group focuses in particular on the “Climate & Environment” (C&E) component.

Climate and environment (C&E) factors relate to the quality and functioning of the natural environment and systems and include factors such as climate change, biodiversity, energy consumption, air pollution and waste management. These are factors that can have a negative financial impact through various risk drivers.

These can be categorised into physical and transitional risks:
- Physical risks relate to adverse financial effects from climate change, including more frequent extreme weather events and gradual global warming, as well as environmental degradation (e.g. water and land pollution, biodiversity loss and deforestation). Physical risks are divided into “acute” caused by extreme weather events (such as droughts, floods and storms) and “chronic” caused by ongoing climate change (such as rising sea levels, loss of biodiversity, scarcity of resources). These can directly result in damage to buildings and reduced productivity.
- Transitional risks relate to the financial loss to the institution that may result directly or indirectly from the process of transitioning to a low-carbon and more environmentally friendly, sustainable economy. For example, this could be triggered by an abrupt shift in climate and environmental policy, technological progress or changing consumer behaviour.

Social and corporate governance factors relate to rights, the welfare of people and communities, including the organisational management of environmental and social factors in terms of strategy and processes.

Sustainability risk is materialising across the traditional risk types (credit risk, market risk, operational and reputational risk, liquidity and funding risk) and is gradually being integrated into risk monitoring within the framework of a project.

Risks arising from outsourcing activities

Outsourcing involves the transfer of activities and processes to intragroup and external service providers. Parts of the operational risk can also be mitigated by transferring the liability, while contractual risks arising from the outsourcing arrangement remain within HVB or a subsidiary of HVB Group. An outsourcing arrangement is deemed to exist when a different company is contracted to carry out activities and processes in connection with the performance of banking business, financial services or other typical banking services that would otherwise be performed by the outsourcing company itself. This includes outsourcing arrangements within UniCredit as well as the subcontracting of outsourced activities and functions to subcontractors.

Outsourcing risk is considered a cross-risk-type risk at HVB Group and is not treated as a separate risk type. Outsourcing activities affect the following risk types in particular: operational risk, reputational risk, strategic risk, business risk, credit risk, market risk and liquidity risk. Those risks that are identified and assessed in an in-depth risk analysis are managed as part of the respective risk type. Specific risks arising from outsourcing activities that cannot be assigned directly to a specific risk type are managed by the unit responsible for the outsourcing in question.

The respective project team and defined functional departments (including Operational Risk Management, Compliance, Legal, Corporate Affairs & Documentation, Data Protection and Business Continuity Management) use a standardised procedure to classify outsourcing arrangements as “not critical/material” and “critical/material”. An in-depth risk analysis covering the other risk types as well as operational risk is performed for all outsourcing arrangements. A retained organisation (RTO) responsible for the arrangement is set up for each outsourcing arrangement that manages the risks identified. The identified risks are incorporated in HVB Group’s risk management in the processes defined for the risk types concerned. The operational risk managers help the project managers and the heads of the RTOs to prepare and/or update the related risk analyses. Other external service providers for whom aspects of ICT security, data protection or business continuity are relevant have been evaluated in a dedicated third-party risk management process since mid-2020.

In HVB Group, no new critical/significant outsourcing contract was concluded by HVB in 2023. The subsidiaries UniCredit Leasing GmbH and UniCredit Leasing Finance GmbH concluded a contract with UniCredit Bank GmbH as provider for “Accounting, Controlling, Risk Management and Regulatory Reporting activities” in order to prevent potential operational risks at the leasing companies that could arise as part of the rundown and the associated reduction in personnel. At WealthCap KVG, the previous IT provider, Datagroup, was replaced by DataGroup BIT GmbH and a new significant outsourcing established with the service provider Control.IT Unternehmensberatung GmbH for the operation of a cloud-based application for the portfolio management of the real estate fund. In the course of the closure of the branch in Luxembourg as at 30 June 2023, three contracts with UniCredit International Bank Luxembourg S.A. on “Compliance support services”, “Operations services in the area of the settlement of collateral, payments and taxes as well as general master data maintenance” and “Support services for software maintenance” were terminated. The change in the above-mentioned contracts did not result in a significant change in the risk.

ICS – Internal Control System

Internal control system with regard to the financial reporting process

Section 315 (4) of the German Commercial Code (Handelsgesetzbuch – HGB) requires capital market-oriented companies as defined in Section 264d HGB to describe the main features of their internal control system (ICS) and risk management system with regard to the financial reporting process.

As part of UniCredit, HVB Group is also obliged to comply with Law 262 ("the Savings Law" – Law 262/2005, passed in Italy in 2005 and amended by Legislative Decree 303/2006, based on the Sarbanes-Oxley Act in the United States, Law 262). Alongside Finance-internal controls, there are also checking and control steps in upstream processes and organisations.

Definitions and objectives

The internal control system (ICS) encompasses the policies, processes and measures needed to ensure the financial reporting process including the related reporting as well as compliance with the applicable legal provisions. It is intended to ensure that internal and external financial reports are correct and reliable and that the assets, provisions, liabilities, and deferrals and accruals are classified, recognised and measured and changes in equity are correctly shown.

Risks with regard to the financial reporting process might, for example, involve human processing errors, system weaknesses or fraudulent conduct resulting in significant financial misrepresentations or delays in financial reporting, and these might not give a true and fair view of the assets, liabilities, financial position and profit or loss. These risks might possibly entail legal penalties and, in addition, the erosion of stakeholders' confidence and thus damage to the Bank's reputation. The purpose of the ICS with regard to the financial reporting process is to implement controls that ensure with an adequate degree of certainty that the annual and consolidated financial statements together with the Combined Management Report are prepared in compliance with regulations despite the identified risks.

The risk management system is formulated in broad terms and relates above all to strategic management, the identification, quantification, assessment, monitoring and active management of risk. The ensuing coordination of risk-management, risk-controlling and risk-monitoring processes in HVB Group is presented in the Risk Report in the present Combined Management Report. The respective risk types are described in detail in the sections entitled "Risk types" and "Risk types in detail".

The method of the ICS in relation to the financial reporting process and thus the introduction of processes including risk and monitoring assessment is based on the international "Internal Control – Integrated Framework" issued by the Treadway Commission's Committee of Sponsoring Organizations (COSO). The main task in this context is to define specific objectives to facilitate a control system and to monitor the effectiveness of the control system on this basis. The following objectives are pursued:

- Completeness: Mapping of all relevant transactions such as assets, liabilities and provisions that have an effect on the financial reports.
- Measurement: Recognition of the relevant items at their correct amounts in the financial reports.
- Presentation and disclosure: The financial reports are correctly classified and discussed regarding recognition, structure and disclosures in the notes to the financial statements, comply with legal requirements and are published on schedule.

Even the extensive structuring of the ICS can naturally only ensure that the objectives of the ICS are achieved with reasonable assurance but not with absolute certainty. The documented controls carried out within the framework of the ICS for the relevant processes or systems are therefore unable to completely eliminate mistakes or fraudulent actions. It must also be taken into account in this context that the work performed and spending on the ICS must be commensurate with the benefits achieved.

ICS organisation

The Management Board, or from registration of the change of legal form to UniCredit Bank GmbH in the Commercial Register on 15 December 2023 the Executive Board (both hereinafter referred to below as the "Executive Board"), determines the extent and orientation of the ICS specifically geared to HVB Group, taking measures to refine the systems and adapt them to changing conditions. At its meetings, the Executive Board discusses the consolidation and monitoring of all projects and measures related to the ICS on a regular basis.

Responsibility for the financial reporting process and, in particular, for the preparation of the annual and consolidated financial statements rests with the Chief Financial Officer (CFO). The CFO receives significant support in this context from the Chief Risk Officer (CRO) by the CRO also assuming responsibility for the measurement of financial instruments (receivables, securities and derivatives), among other things.

The Finance organisation is also supported in the technical process of preparing the financial statements by the Human Resources department (recognition and measurement of payroll expenses), the Legal department (recognition and measurement of legal disputes and other legal risks) and external third parties. The latter essentially extend to various expert opinions of external service providers relating to such things as the measurement and accounting treatment of pension provisions.

Technical system support for the application systems used in Accounting and especially in connection with preparing the financial statements has been outsourced to UniCredit S.p.A. This is monitored and managed by the Retained Organisation in the Digital & Information business area.

ICS – Internal Control System (Continued)

Organisational structure and tasks of the Finance organisation

For financial reporting processes, Finance is essentially broken down into the following areas:

HVB's financial reporting is conducted by the Accounting & Regulatory Reporting (CFF) area. This area has functional responsibility for the accounting systems employed by HVB. At the same time, the CFF area is responsible for fundamental accounting issues concerning IFRS and HGB, preparing the consolidated financial statements and is also in charge of financial reporting in the annual reports of HVB and HVB Group. In addition, the administration of shareholdings for financial reporting purposes and the regulatory reporting for HVB Group to the banking supervisory authorities are positioned in this area.

The tax department (CFT/Tax) monitors compliance with tax laws on the one hand and on the other hand, advises the Executive Board, the business lines and the competence lines on tax-related concerns of HVB, including its foreign branches.

Planning (CCP) is tasked with central business management and cost controlling at HVB Group. CCP has process responsibility for the preparation of income budgets and income projections as well as the preparation and validation of the internal segment report in accordance with IFRS. In addition, CCP is responsible for the management of shareholdings, the management of capital and capital allocation as well as the risk-return methodology. Moreover, the business area-related controlling areas for all the segments excluding the Corporate Center are assigned to CCP. The reconciliation of the result for Client Risk Management is carried out between CCP and Accounting. The reconciliation of the result for Treasury is carried out between Accounting and Finance.

In addition, the Data & Intelligence area, which is positioned outside the Finance Organisation, is responsible for data and information governance in coordination with Group Data & Intelligence. In addition, significant parts of the data production for the Finance area are amalgamated in Data & Intelligence to achieve a continual improvement in data quality. This area also has responsibility for the implementation of various IT projects relating to financial reporting.

Controls in the ICS for risk minimisation

Based on the requirements under Law 262 and the legal requirements of the German Commercial Code, a number of financial reporting processes complete with the risks and controls that these include are documented in the course of implementing the ICS at HVB Group. To reduce the risk of misrepresentation in financial reporting, preventive and investigative controls are carried out that are documented in process descriptions. Compliance with the separation of functions and with approval authority regulations is ensured when defining controls. Controls comprise both manually operated system-based controls and purely manual controls. Alongside Finance-internal controls, there are also checking and control steps in upstream processes.

The focus of risk and control analysis is on identifying and evaluating the risks and controls relevant to financial reporting. Identified risk potential is to be sufficiently reduced through defined control steps. In periodic representative spot checks, those responsible for the controls document the implementation of these controls and provide adequate records. If no controls are implemented or if controls are identified that do not sufficiently reduce risk, or there is insufficient documentation of the controls, measures are initiated to eliminate the identified deficiencies. The timely implementation and documentation of these measures are reviewed on a quarterly basis.

In a half-yearly certification process, the management of the areas in charge of processes confirms to the CFO of HVB Group and the CFO to UniCredit S.p.A. that controls to ensure correct reporting have been carried out.

Furthermore, an annual analysis is carried out on the basis of company level controls. This is a list of questions based on the international COSO framework, the answers to which are used to check the existence of comprehensive control measures in HVB Group that are suitable for reducing the risk of incorrect external presentation or incorrect actions, not only with regard to financial reporting.

The controls cover the aspects of the ICS described below:

Group posting and accounting rules defined in the UniCredit Group Accounting Manual (GAM), which is valid for the Group as a whole, serve to ensure consistent financial reporting about the Group's business activities. In addition, there are general accounting rules set out in the Bank-wide Operating Guidelines, the application of which is mandatory for all process participants.

HVB uses SAP AG's standard SAP Balance Analyzer and Business Warehouse software to prepare its annual financial statements. The SAP Balance Analyzer concept is based on the mainly automated uploading of individual transaction data from the upstream systems relevant to financial reporting (sub-ledger). The items provided by the upstream systems are reconciled and an automatic comparison of the totals with the general ledger account balances is carried out, which serves as proof of the completeness of balance sheet items. Accounting collates the data relevant to the financial statements. At the same time, it also corrects errors and carries out manual entries of one-off transactions and closing entries. Adjustments and closing entries are carried out by authorised persons in accordance with the dual control principle. Furthermore, deviation analyses are conducted at item level to minimise the risk of error and incomplete data.

ICS – Internal Control System (Continued)

The ICS for securities, derivatives and other trading-related transactions also comprises the following components:

– The allocation of transactions to holding categories compliant with IFRS and HGB is primarily governed by the orientation of the operating units. The holding category for each (trading) book and the trading strategy pursued are determined individually. Accounting is involved as an authorising body to ensure compliance with individual requirements for classification according to the respective accounting standard.
– Requirements for accounting entries based on the respective holding category – initiated by transactions – are defined in the accounting systems.
– The income calculated for financial reporting purposes is reconciled on a monthly basis by comparing it with the result of the economic income statement that serves as the basis for the daily information provided to the Executive Board. Following this, the results are analysed and comments made on the content of the deviation analysis.
– Risk Controlling, which reports to the CRO, performs several tasks in connection with ensuring measurement and other information relevant to the financial statements (for example: level allocation) of the financial instruments mentioned above. Firstly, Risk Controlling checks transactions to ensure their compliance with market pricing. Secondly, Risk Controlling determines and checks the measurement of financial instruments in front office systems. Depending on market parameters and asset classes, market data are supplied by both the Trading area and external sources such as Bloomberg, Reuters, MarktIT and others. Measurement adjustments and measurements based on estimates are agreed between the CRO and Finance areas.
– In line with the separation of functions, the back office handles the processing of HVB trades. External service providers have been engaged to process securities transactions in Germany and for the Milan branch. This ensures that trades are processed independently of the Trading area.

A cross-area new product process is in place for launching new products, which is described in the Operating Guidelines. The products relevant for a new product process are addressed in this. The process involves all the areas concerned as these must give their approval or have veto rights and are authorised to enforce adjustments and restrictions and even discontinue the new product process.

The consolidated financial statements prepared in accordance with IFRS are based on the standalone financial statements of HVB, the subsidiaries included in the consolidated financial statements and special purpose entities on the basis of local accounting rules. These financial statements are adjusted specifically for HVB Group in line with the group-wide UniCredit accounting principles and then reconciled with uniform corporate group standards by the reporting companies and at the same time transformed to comply with the corporate group’s chart of accounts. The figures for the consolidated financial statements and the subsequent consolidated entries are collected and reported using the TAGETIK CPM consolidation system marketed by Tagetik Software S.r.l. This is used across the entire corporate group and networked across all Group companies. After the figures have been entered in or transferred to this system by the Group companies, the system is closed for further entries in line with the phases of the consolidation process. These data may only be changed in exceptional circumstances, as agreed with the subsidiary concerned. The consolidation process includes system-based validation checks at a wide range of levels to reduce the risk of error. In addition, validation checks are carried out on a regular basis.

The figures presented in the consolidated balance sheet and consolidated income statement are validated by analysing deviations from historical comparative figures and budget figures. This validation also takes place over the entire course of the reporting year as part of the ongoing process of preparing the monthly and quarterly financial statements. In addition, the data are also verified by analysing the segment report.

With regard to the presentation and disclosure of financial reporting-related data in financial reports, controls have been implemented to ensure compliance with disclosure duties. This is carried out through the use of checklists and through the review and approval of the data by management personnel within the Finance organisation.

UniCredit S.p.A. carries out the back-up and archiving of data from financial reporting application systems under the responsibility of the CFO in accordance with Section 257 HGB in conjunction with Sections 238 and 239 HGB and in accordance with German Generally Accepted Accounting Principles (GAAP) under the supervision of the Retained Organisation and the respective banking expert responsible. Controls between the upstream systems (e.g. EuroSIG) and the general ledger have been outsourced to UniCredit S.p.A. via additional service level agreements (SLAs) for first level controls. Another technical review takes place in the Data & Intelligence and Accounting areas as a second level control.

The required protection against unauthorised access and compliance with the separation of functions when using the Bank's financial reporting application systems are ensured in particular by requesting and periodically monitoring individual rights in the authorisation management systems. For example, special approval is provided for SAP rights across the board by the functional units responsible for the application. Individual rights are limited to a maximum period of one year.

Furthermore, contingency plans are in place to ensure the availability of human and technical resources to handle the processes involved in financial reporting. These contingency plans are updated and refined regularly and on an ad hoc basis.

Monitoring the effectiveness of the ICS

Internal Audit

The Internal Audit area is a process-neutral instrument of the Executive Board as a whole, to which it reports directly. According to its internal regulations, the Executive Board bears overall responsibility for setting up the Internal Audit area and ensuring that it functions properly. In the reporting year, operational responsibility for the audit function was assigned to the Spokesman/Spokeswoman of the Executive Board (CEO).

The Internal Audit area is generally responsible for the risk-oriented, process-independent auditing and assessment of all activities and processes, regardless of whether they are outsourced or not. Where necessary, the outsourced activities are audited by the internal audit function of the service provider.

For this purpose, the Internal Audit area carries out a risk-based selection of individual operating and business processes in order to set scheduling priorities for audits. The Minimum Requirements for Risk Management (MaRisk) stipulate that all operating and business processes must be audited at least once every three years. In the case of activities and processes deemed to be of lower priority in terms of risk, it is permissible to deviate from the three-year cycle. Operating and business processes subject to especially high levels of risk are audited at least once a year. If the need arises or it is instructed to do so, the Internal Audit area may also carry out tasks at subsidiaries.

ICS – Internal Control System (Continued)

The Bank's Internal Audit area must audit and assess the following aspects in particular:
– functionality, effectiveness, economic efficiency and adequacy of the internal control system
– applications, functionality, effectiveness and adequacy of the risk management and risk control systems, reporting, information systems, and finance and accounting
– compliance with legal and regulatory standards as well as other regulations
– adherence to internal operational guidelines, ordinances and regulations
– correctness of operational and business processes
– regulations and measures to protect assets

While audit reports are submitted to audited units and the managing directors responsible for these, the Executive Board as a whole receives quarterly reports and an annual report which include an overview of audit findings as well as significant deficiencies, major deficiencies, severe deficiencies and particularly severe deficiencies as defined in the MaRisk rules, the measures taken and their current status.

The management of the Internal Audit area informs the Audit Committee and the Risk Committee of the Supervisory Board on a quarterly basis at the meetings of these committees on the main findings of the audits carried out by the Internal Audit area.

Supervisory Board
It is the task of the Supervisory Board to advise the Executive Board on the management of the Bank and monitor it as it conducts its business. Particularly with respect to the monitoring of the financial reporting process and the effectiveness of the ICS, the Supervisory Board receives support from the Audit Committee pursuant to Section 24 (2) s.2 of the German Act on the Co-determination of Employees in Cross-border Mergers (Gesetz über die Mitbestimmung der Arbeitnehmer bei einer grenzüberschreitenden Verschmelzung – MgVG) in conjunction with Section 107 (3) of the German Stock Corporation Act (Aktiengesetz – AktG) and Section 25d (9) Nos. 1 and 2 of the German Banking Act (Kreditwesengesetz – KWG) in conjunction with Article 9 (2) of HVB's Articles of Association. In this context, the Audit Committee also addresses the ICS in connection with the financial reporting process. Furthermore, the Supervisory Board – and, in a preparatory role, the Audit Committee – is itself integrated into the financial reporting processes through its monitoring of the financial reporting by reviewing and approving the annual and consolidated financial statements, the Combined Management Report as well as the proposal for the appropriation of profit. In addition, the Audit Committee and the Supervisory Board discuss the interim financial information with the Executive Board as such information becomes available throughout the year.

Refinement of the ICS
When changes are made to legal provisions and regulations for financial reporting, they must be assessed to determine what consequences, if any, they have for financial reporting processes. In the case of amendments or new regulations that would have an impact on accounting processes, a corresponding project is set up to cover measures such as IT adaptations, working procedures and accounting entry instructions and the effects on financial reporting across all departments and areas.

In the course of the update of the ICS in relation to the financial reporting process, the documented processes are subject to half-yearly reviews and adjustments, where necessary, by the persons responsible for the process and controls.

Consolidated Statement of Total Comprehensive Income

Consolidated Income Statement

INCOME/EXPENSE (€ millions)	NOTE	1/1-31/12/2023	1/1-31/12/2022
Interest income		8,663	3,897
of which calculated using the effective interest method (based on classification according to IFRS 9)		7,203	3,022
Negative interest on financial assets		(4)	(187)
Interest expense		(5,925)	(1,455)
Negative interest on financial liabilities		5	371
Net interest	36	2,739	2,626
Dividends and other income from equity investments	37	30	31
Net fees and commissions	38	1,165	1,120
Net trading income	39	1,564	932
Net gains/(losses) on financial assets and liabilities at fair value	40	(117)	149
Net gains/(losses) on derecognition of financial instruments measured at cost	41	(17)	29
Net other expenses/income	42	(255)	(138)
Payroll costs		(1,334)	(1,415)
Other administrative expenses		(1,045)	(1,087)
Amortisation, depreciation and impairment losses on intangible and tangible assets		(150)	(109)
Operating costs	43	(2,529)	(2,611)
Net write-downs of loans and provisions for guarantees and commitments	44	(167)	(299)
Provisions for risks and charges	45	32	11
Restructuring costs	46	(309)	(80)
Net gains/(losses) on remeasurement of consolidated companies	47	3	(2)
PROFIT/(LOSS) BEFORE TAX		**2,139**	**1,768**
Income tax for the period	48	(404)	(467)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))		**1,735**	**1,301**
attributable to the shareholder of UniCredit Bank GmbH		1,736	1,301
attributable to minorities		(1)	—

Consolidated Statement of Total Comprehensive Income

€ millions	1/1-31/12/2023	1/1-31/12/2022
Profit/(loss) after tax recognised in the income statement (consolidated profit/(loss))	**1,735**	**1,301**
Income and expenses recognised in other comprehensive income		
Income and expenses not to be reclassified to the income statement in future periods		
Actuarial profit/(loss) on defined benefit plans (pension commitments)	(168)	951
Allocation to/withdrawal from the revaluation surplus for owner-occupied property (IAS 16)	(215)	42
Change in the fair value of financial liabilities at FVTPL attributable to changes in the default risk (own credit spread reserve)	4	27
Other changes	(1)	3
Taxes on income and expenses not to be reclassified to the income statement in future periods	139	(32)
Income and expenses to be reclassified to the income statement in future periods		
Changes from foreign currency translation	(4)	7
Changes in the measurement of financial instruments (hedge reserve)	2	(19)
Unrealised gains/(losses)	2	(15)
Gains/(losses) reclassified to the income statement	—	(4)
Changes in the measurement of financial instruments at FVTOCI (FVTOCI reserve)	(29)	(30)
Unrealised gains/(losses)	(28)	(13)
Gains/(losses) reclassified to the income statement	(1)	(17)
Other changes	(11)	(1)
Taxes on income and expenses to be reclassified to the income statement in future periods	12	14
Total income and expenses recognised in equity through other comprehensive income	**(271)**	**962**
Total comprehensive income	**1,464**	**2,263**
of which:		
attributable to the shareholder of UniCredit Bank GmbH	1,464	2,263
attributable to minorities	—	—

Consolidated Balance Sheet

ASSETS (€ millions)	NOTE	31/12/2023	31/12/2022
Cash and cash balances	49	23,293	36,833
Financial assets held for trading	50	68,611	82,258
Financial assets at FVTPL	51	3,215	5,150
Financial assets at FVTOCI	52	9,252	9,837
Loans and receivables with banks (at cost)	53	19,566	23,339
Loans and receivables with customers (at cost)	54	154,477	154,875
Hedging derivatives	56	409	636
Hedge adjustment of hedged items in the portfolio fair value hedge		—	6
Investments in associates and joint ventures accounted for using the equity method	57	17	13
Property, plant and equipment	58	2,050	2,369
Investment properties	59	254	351
Intangible assets	60	6	11
Tax assets		893	997
Current tax assets		220	152
Deferred tax assets		673	845
Non-current assets or disposal groups held for sale	61	67	13
Other assets	62	1,182	1,318
TOTAL ASSETS		**283,292**	**318,006**

LIABILITIES (€ millions)	NOTE	31/12/2023	31/12/2022
Deposits from banks	64	35,673	51,324
Deposits from customers	65	139,557	147,422
Debt securities in issue	66	34,274	31,140
Financial liabilities held for trading	67	48,537	64,304
Financial liabilities at FVTPL	68	4,660	4,818
Hedging derivatives	69	103	200
Hedge adjustment of hedged items in the portfolio fair value hedge	70	(3,763)	(5,474)
Tax liabilities		1,178	1,382
Current tax liabilities		1,086	995
Deferred tax liabilities		92	387
Liabilities of disposal groups held for sale	71	13	—
Other liabilities	72	1,470	1,370
Provisions	73	1,650	1,781
Shareholders' equity	74	19,940	19,739
Shareholders' equity attributable to the shareholder of UniCredit Bank GmbH		18,250	18,048
Subscribed capital (share capital)		2,407	2,407
Additional paid-in capital		9,791	9,791
Other reserves		4,319	4,652
Currency reserves		18	23
Changes in valuation of financial instruments		(10)	15
Hedge reserve		(2)	4
FVTOCI reserve		(8)	11
Profit available for distribution		1,725	1,160
Additional equity instruments		1,700	1,700
Minority interests		(10)	(9)
TOTAL LIABILITIES		**283,292**	**318,006**

In the 2023 financial year, the profit available for distribution disclosed in the annual financial statements of HVB, which forms the basis for the appropriation of profit, amounts to €1,725 million. This consists of the net income for the year of €2,133 million generated in the reporting year less the amount of €408 million transferred to other retained earnings. We will propose to the Shareholders' Meeting that the profit available for distribution of €1,725 million be paid to UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a profit distribution of around €2.15 per share after around €1.45 per share for the 2022 financial year. The profit available for distribution of €1,160 million reported in the previous year was distributed to UniCredit S.p.A. on 30 March 2023 in accordance with the resolution adopted by the Annual General Meeting on 27 March 2023.

Statement of Changes in Consolidated Shareholders' Equity

€ millions	SUBSCRIBED CAPITAL (SHARE CAPITAL)	ADDITIONAL PAID-IN CAPITAL	OTHER RESERVES				CURRENCY RESERVE
			TOTAL OTHER RESERVES	OF WHICH OWN CREDIT SPREAD	OF WHICH REVALUATION RESERVE FOR OWN PROPERTIES	OF WHICH PENSIONS AND SIMILAR OBLIG-ATIONS (IAS 19)	
Shareholders' equity as at 1/1/2023	**2,407**	**9,791**	**4,652**	**(37)**	**957**	**(1,007)**	**23**
Consolidated profit/(loss) recognised in the consolidated income statement	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total income and expenses recognised in equity through other comprehensive income[3]	**—**	**—**	**(241)**	**3**	**(128)**	**(115)**	**(5)**
Unrealised gains/(losses) due to changes in measurement	—	—	(125)	3	(128)	—	—
Gains/(losses) reclassified to the income statement	—	—	—	—	—	—	—
Actuarial gains/(losses) on defined benefit plans	—	—	(115)	—	—	(115)	—
Changes from foreign currency translation	—	—	—	—	—	—	(5)
Other changes	—	—	(1)	—	—	—	—
Total other changes in equity	**—**	**—**	**(92)**	**—**	**(7)**	**(3)**	**—**
Capital increase	—	—	—	—	—	—	—
Reclassification from equity reserves to retained earnings	—	—	—	—	(7)	(3)	—
Dividend payouts	—	—	—	—	—	—	—
Payouts on additional equity instruments	—	—	(99)	—	—	—	—
Transfers to/withdrawals from consolidated profit available for distribution	—	—	11	—	—	—	—
Changes in group of consolidated companies	—	—	(2)	—	—	—	—
Capital decreases	—	—	—	—	—	—	—
Other changes	—	—	(2)	—	—	—	—
Shareholders' equity as at 31/12/2023	**2,407**	**9,791**	**4,319**	**(34)**	**822**	**(1,125)**	**18**
Shareholders' equity as at 1/1/2022	**2,407**	**9,791**	**3,589**	**(55)**	**945**	**(1,949)**	**16**
Consolidated profit/(loss) recognised in the consolidated income statement	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total income and expenses recognised in equity through other comprehensive income3	**—**	**—**	**991**	**18**	**22**	**949**	**7**
Unrealised gains/(losses) due to changes in measurement	—	—	40	18	22	—	—
Gains/(losses) reclassified to the income statement	—	—	—	—	—	—	—
Actuarial gains/(losses) on defined benefit plans	—	—	949	—	—	949	—
Changes from foreign currency translation	—	—	—	—	—	—	7
Other changes	—	—	2	—	—	—	—
Total other changes in equity	**—**	**—**	**72**	**—**	**(10)**	**(7)**	**—**
Capital increase	—	—	—	—	—	—	—
Reclassification from equity reserves to retained earnings	—	—	—	—	(10)	—	—
Dividend payouts	—	—	—	—	—	—	—
Payouts on additional equity instruments	—	—	(68)	—	—	—	—
Transfers to/withdrawals from consolidated profit available for distribution	—	—	141	—	—	—	—
Changes in group of consolidated companies	—	—	(1)	—	—	(7)	—
Capital decreases	—	—	—	—	—	—	—
Other changes	—	—	—	—	—	—	—
Shareholders' equity as at 31/12/2022	**2,407**	**9,791**	**4,652**	**(37)**	**957**	**(1,007)**	**23**

1 The Shareholders' Meeting of 27 March 2023 resolved to distribute the 2022 profit available for distribution to our sole shareholder UniCredit S.p.A. (UniCredit), Milan, Italy.
The Shareholders' Meeting of 5 May 2022 resolved to distribute the 2021 profit available for distribution to our sole shareholder UniCredit S.p.A. (UniCredit), Milan, Italy.

2 Attributable to the shareholder UniCredit Bank GmbH.

3 Recognised through the consolidated statement of total comprehensive income.

4 Instruments are held entirely by UniCredit S.p.A.

€ millions	CHANGE IN MEASUREMENT OF FINANCIAL INSTRUMENTS HEDGE RESERVE	FVTOCI RESERVE	PROFIT AVAILABLE FOR DISTRI-BUTION[1]	TOTAL SHAREHOLDERS' EQUITY ATTRIBUTABLE TO THE SHARE-HOLDER OF HVB[2]	ADDI-TIONAL EQUITY INSTRU MENTS[4]	MINORITY INTERESTS	TOTAL SHARE-HOLDERS' EQUITY
Shareholders' equity as at 1/1/2023	**4**	**11**	**1,160**	**18,048**	**1,700**	**(9)**	**19,739**
Consolidated profit/(loss) recognised in the consolidated income statement	**—**	**—**	**1,736**	**1,736**	**—**	**(1)**	**1,735**
Total income and expenses recognised in equity through other comprehensive income[3]	**(6)**	**(19)**	**—**	**(271)**	**—**	**—**	**(271)**
Unrealised gains/(losses) due to changes in measurement	1	(19)	—	(143)	—	—	(143)
Gains/(losses) reclassified to the income statement	—	—	—	—	—	—	—
Actuarial gains/(losses) on defined benefit plans	—	—	—	(115)	—	—	(115)
Changes from foreign currency translation	—	—	—	(5)	—	—	(5)
Other changes	(7)	—	—	(8)	—	—	(8)
Total other changes in equity	**—**	**—**	**(1,171)**	**(1,263)**	**—**	**—**	**(1,263)**
Capital increase	—	—	—	—	—	—	—
Reclassification from equity reserves to retained earnings	—	—	—	—	—	—	—
Dividend payouts	—	—	(1,160)	(1,160)	—	—	(1,160)
Payouts on additional equity instruments	—	—	—	(99)	—	—	(99)
Transfers to/withdrawals from consolidated profit available for distribution	—	—	(11)	—	—	—	—
Changes in group of consolidated companies	—	—	—	(2)	—	—	(2)
Capital decreases	—	—	—	—	—	—	—
Other changes	—	—	—	(2)	—	—	(2)
Shareholders' equity as at 31/12/2023	**(2)**	**(8)**	**1,725**	**18,250**	**1,700**	**(10)**	**19,940**
Shareholders' equity as at 1/1/2022	**19**	**32**	**245**	**16,099**	**1,700**	**(9)**	**17,790**
Consolidated profit/(loss) recognised in the consolidated income statement	**—**	**—**	**1,301**	**1,301**	**—**	**—**	**1,301**
Total income and expenses recognised in equity through other comprehensive income3	**(15)**	**(21)**	**—**	**962**	**—**	**—**	**962**
Unrealised gains/(losses) due to changes in measurement	(12)	(9)	—	19	—	—	19
Gains/(losses) reclassified to the income statement	(3)	(12)	—	(15)	—	—	(15)
Actuarial gains/(losses) on defined benefit plans	—	—	—	949	—	—	949
Changes from foreign currency translation	—	—	—	7	—	—	7
Other changes	—	—	—	2	—	—	2
Total other changes in equity	**—**	**—**	**(386)**	**(314)**	**—**	**—**	**(314)**
Capital increase	—	—	—	—	—	—	—
Reclassification from equity reserves to retained earnings	—	—	—	—	—	—	—
Dividend payouts	—	—	(245)	(245)	—	—	(245)
Payouts on additional equity instruments	—	—	—	(68)	—	—	(68)
Transfers to/withdrawals from consolidated profit available for distribution	—	—	(141)	—	—	—	—
Changes in group of consolidated companies	—	—	—	(1)	—	—	(1)
Capital decreases	—	—	—	—	—	—	—
Other changes	—	—	—	—	—	—	—
Shareholders' equity as at 31/12/2022	**4**	**11**	**1,160**	**18,048**	**1,700**	**(9)**	**19,739**

Consolidated Cash Flow Statement (abridged version)

€ millions	2023	2022
CONSOLIDATED PROFIT/(LOSS)	**1,735**	**1,301**
Write-downs, provisions for losses on, and write-ups of, loans and receivables and additions to provisions for losses on guarantees and indemnities	208	356
Write-downs and depreciation less write-ups on non-current assets	299	108
Change in other non-cash positions	(913)	(5,740)
Gains/(losses) on the disposal of non-current assets	(3)	(12)
Other adjustments (net interest and dividend income from the income statement, taxes on income paid)	(2,788)	(2,899)
Subtotal	**(1,462)**	**(6,886)**
Change in assets and liabilities from operating activities after correction for non-cash components		
Increase in assets/decrease in liabilities (-)		
Decrease in assets/increase in liabilities (+)		
Financial assets held for trading	499	17,550
Financial assets at FVTPL	1,935	2,601
Financial assets at FVTOCI	585	2,169
Loans and receivables with banks (at cost)	3,478	1,267
Loans and receivables with customers (at cost)	182	(5,872)
Other assets from operating activities	(325)	292
Deposits from banks	(15,724)	(10,762)
Deposits from customers	(7,914)	12,684
Debt securities in issue	3,098	(1,035)
Other liabilities from operating activities	190	(5,563)
Taxes on income	(311)	(94)
Interest received	8,684	4,182
Interest paid	(5,540)	(1,501)
Dividends received	251	352
CASH FLOW FROM OPERATING ACTIVITIES	**(12,374)**	**9,384**
Proceeds from the sale of investments	23	30
Proceeds from the sale of property, plant and equipment	162	105
Payments for the acquisition of investments	(4)	(1)
Payments for the acquisition of property, plant and equipment	(153)	(75)
Effects of the change in the group of companies included in consolidation	63	—
Effect of the disposal of discontinued operations	—	—
CASH FLOW FROM INVESTING ACTIVITIES	**91**	**59**
Change in additional paid-in capital	—	—
Dividend payments	(1,160)	(245)
Issue of subordinated liabilities and hybrid capital	—	—
Payouts on additional equity instruments (after tax)	(99)	(68)
Repayment/buy-back of subordinated liabilities and hybrid capital	—	—
Changes in cash from other change in equity	2	11
CASH FLOW FROM FINANCING ACTIVITIES	**(1,257)**	**(302)**
CASH AND CASH EQUIVALENTS AT END OF PREVIOUS PERIOD	**36,833**	**27,692**
CASH FLOW FROM OPERATING ACTIVITIES	**(12,374)**	**9,384**
CASH FLOW FROM INVESTING ACTIVITIES	**91**	**59**
CASH FLOW FROM FINANCING ACTIVITIES	**(1,257)**	**(302)**
Effects of exchange rate changes	—	—
Less non-current assets or disposal groups held for sale	—	—
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**23,293**	**36,833**

Legal Basis

With effect from 15 December 2023, UniCredit Bank AG was transformed into UniCredit Bank GmbH (HVB) by way of a change of legal form pursuant to Section 190ff of the German Transformation Act (Umwandlungsgesetz – UmwG).

Details of the company

Company name	UniCredit Bank GmbH
Legal form of the company	Gesellschaft mit beschraenkter Haftung (limited liability company)
Company headquarters	Germany
Country in which the company is registered as a legal entity	Germany
Address of the registered office and principal place of business	Arabellastrasse 12, 81925 Munich, Germany
Commercial Register	Number HRB 289472, B section of the Commercial Register, Munich Local Court
Type of business activity of the company	Conducting all kinds of banking transactions and the business of a Pfandbrief Bank, providing financial services and performing all other principal and ancillary activities a credit institution or Pfandbrief bank may perform, both for its own account or for the account of a third party
Name of the parent company	UniCredit S.p.A.
Name of the ultimate parent company of the corporate group	UniCredit S.p.A.

UniCredit Bank GmbH (HVB) is an affiliated company of UniCredit S.p.A., Milan, Italy in whose consolidated financial statements HVB Group is included. These are published on the UniCredit corporate group's website at the following address: https://www.unicreditgroup.eu/en/investors/financial-reports.html.

Further information on the Bank's products and services is provided in the Note "Components of segment reporting by operating segment" in the notes to these consolidated financial statements.

As a capital market-oriented company, HVB prepares its financial statements in accordance with the requirements of the International Accounting Standards Board (IASB) in the version adopted by the EU. This provides a reliable and internationally comparable basis for evaluating the assets, liabilities, financial position and profit or loss of HVB Group. Our value-based management is similarly based on these accounting principles.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) pursuant to Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of 19 July 2002 (IAS Regulation) together with further regulations regarding the adoption of certain IFRS within the framework of the EU endorsement in conjunction with Section 315e (1) of the German Commercial Code (Handelsgesetzbuch – HGB) as non-exempt consolidated financial statements compliant with Section 4 of the IAS Regulation. Besides the standards defined as IFRS, the IFRS also comprise the existing International Accounting Standards (IAS) together with the interpretations known as IFRIC and SIC of the IFRS Interpretations Committee (IFRS IC) and its predecessor organisation. All the standards and interpretations subject to mandatory application in the EU for the 2023 financial year have been applied. Section 315e HGB also contains national regulations to be applied alongside the IFRS by capital market-oriented companies.

The present consolidated financial statements were prepared by HVB's Executive Board on 28 February 2024 and will be submitted to the Supervisory Board on 8 March 2024 for approval.

Legal Basis (Continued)

The Combined Management Report meets the requirements of Section 315 (1) and (4) HGB and incorporates a risk report pursuant to Section 315 (2) No. 1 HGB.

UniCredit Bank GmbH (HVB) has exercised the option provided by Section 315 (5) HGB in conjunction with Section 298 (2) HGB and has combined HVB's Management Report with HVB Group's Management's Discussion and Analysis.

Compliant with Section 264b HGB, the following partnerships are exempted from the obligation to prepare a management report and publish their annual financial statements:
– Gemma Verwaltungsgesellschaft mbH & Co. Vermietungs-KG
– H.F.S. Leasingfonds Deutschland 7 GmbH & Co. KG, Munich
– Omnia Grundstücks-GmbH & Co. Objekt Haidenauplatz KG, Munich
– Othmarschen Park Hamburg GmbH & Co. Gewerbepark KG, Munich
– TERRENO Grundstücksverwaltung GmbH & Co. Entwicklungs- und Finanzierungsvermittlungs KG, Munich
– Vermietungsgesellschaft mbH & Co. Objekt MOC KG, Munich

Compliant with Section 264 (3) HGB, the following corporations are exempted from the obligation to prepare a management report and publish their annual financial statements:
– Argentaurus Immobilien-Vermietungs- und Verwaltungs GmbH, Munich
– HVB Immobilien AG, Munich
– HVB Projekt GmbH, Munich
– HVB Tecta GmbH, Munich
– HVB Verwa 4 GmbH, Munich
– HVB Verwa 4.4 GmbH, Munich
– NF Objekt FFM GmbH, Munich
– UniCredit Direct Services GmbH, Munich
– UniCredit Beteiligungs GmbH, Munich

Accounting and Valuation

1 Reporting date/period
The amounts shown in the tables and texts below relate to the reporting date of 31 December for disclosures regarding balance sheet items and totals and to the period from 1 January to 31 December of the respective year for disclosures regarding the income statement.

2 Uniform Group accounting policies
The separate financial statements of the domestic and foreign subsidiaries are incorporated in the consolidated financial statements of HVB Group in accordance with uniform accounting and valuation principles.

3 Consistency
In accordance with the IFRS framework together with IAS 1 and IAS 8, the accounting, valuation and disclosure policies are applied consistently from one period to the next. Any changes in accounting policies are discussed, where necessary, as follows: the first-time adoption of new or amended IFRS accounting rules is described in the Note "First-time adoption of new IFRS accounting rules". Where significant accounting and valuation errors from earlier periods are corrected, the amounts involved are adjusted retroactively as a general rule. Where retroactive adjustment is not possible in exceptional circumstances, the amounts involved are adjusted against retained earnings. Where we effect changes in accounting and valuation policies, any resulting adjustments are similarly recognised retrospectively.

Wealth Management Capital Holding GmbH, Munich
In the second half of 2023, HVB decided to end the sales process and to keep Wealth Management Capital Holding GmbH with its subsidiaries. Compliant with the requirements set out in IFRS 5.28 for the sales process of subsidiaries, reclassification is to be carried out retrospectively which means that the current and previous financial years are presented as though Wealth Management Capital Holding GmbH with its subsidiaries had not been classified as non-current assets or disposal groups held for sale as at year-end 2020. For the purposes of recognition in the balance sheet, Wealth Management Capital Holding GmbH with its subsidiaries were reclassified retrospectively. For reasons of materiality, only the effects of reclassification on the income statement were not recognised retrospectively; instead these were recognised as a single amount in the 2023 income statement. The effects are limited to the subsequent depreciation and amortisation of property, plant and equipment and intangible assets to be taken totalling €3 million because compliant with IFRS 5.25 scheduled depreciation and amortisation of property, plant and equipment and intangible assets was to be suspended while these were classified as non-current assets or disposal groups held for sale. For materiality reasons, the previous-year figures (2022) in the cash flow statement have not been adjusted either.

This adjustment is explained below, otherwise the consolidated financial statements are presented after retrospective adjustment and no further reference is made to this change.

Following the measurement rule of IFRS 5.27, the assets and liabilities of Wealth Management Capital Holding GmbH with its subsidiaries are recognised on the basis of the carrying amounts at the time before these were classified as non-current assets or disposal groups held for sale as at year-end 2020. For reasons of materiality, the subsequent taking into account of the scheduled depreciation and amortisation of non-current assets and intangible assets that was suspended from 1 January 2020 until 30 June 2023 has been waived; these were recognised through profit or loss in the second half of 2023. As Wealth Management Capital Holding GmbH with its subsidiaries is not a cash generating unit or a business area from HVB's perspective, the measurement of the assets and liabilities concerned is to be based on the principle of individual measurement.

Accounting and Valuation (Continued)

As only the balance sheet figures as at 31 December 2022 and as at 31 December 2023 are shown in these consolidated financial statements, the retrospective adjustment of the balance sheet figures due to reclassification only concerns the adjustment of figures as at 31 December 2022. It is no longer necessary to report the figures for balance sheet dates prior to the date on which Wealth Management Capital Holding GmbH with its subsidiaries were reported as non-current assets or disposal groups held for sale as at year-end 2020.

Consequently, the assets and liabilities of Wealth Management Capital Holding GmbH with its subsidiaries as at 31 December 2022 are shown under the respective balance sheet item and not as non-current assets or disposal groups held for sale or as liabilities of disposal groups held for sale.

€ millions	CARRYING AMOUNT RECOGNISED AS AT 31/12/2022 IN THE CONSOLIDATED FINANCIAL STATEMENTS 2022	ADJUSTMENT OF PREVIOUS-YEAR FIGURES	CARRYING AMOUNT RECOGNISED AS AT 31/12/2022 IN THE CONSOLIDATED FINANCIAL STATEMENTS 2023
ASSETS			
Financial assets at FVTPL	4,933	217	5,150
Loans and receivables with banks (at cost)	23,336	3	23,339
Loans and receivables with customers (at cost)	154,776	99	154,875
Property, plant and equipment	2,368	1	2,369
Investment properties	335	16	351
Intangible assets	6	5	11
Tax assets	992	5	997
Other assets	962	356	1,318
LIABILITIES			
Deposits from banks	51,181	143	51,324
Deposits from customers	147,152	270	147,422
Tax liabilities	1,357	25	1,382
Other liabilities	1,231	139	1,370
Provisions	1,778	3	1,781

Additional equity instruments
The classification of the distribution for additional equity instruments was adjusted in the reporting year. These distributions are now treated as a profit distribution as defined by IAS 12.57A. In view of the fact that these payouts are tax deductible and posted as an interest expense pursuant to HGB, the tax effect on distributions for additional equity instruments of €31 million is now recognised as a tax expense while the gross distribution of €99 million is recognised in the statement of changes in equity as a payout on additional equity instruments and charged to retained earnings. To date, the net distribution of €68 million was reported in the statement of changes in equity as a payout on additional equity instruments. For reasons of materiality, we have not adjusted the previous year figures. The effects in the previous year are the same as the effects in the reporting year as the additional equity instruments have not changed year on year. In the event of a retrospective adjustment, the tax expense for 2022 would fall by €31 million to €436 million, profit after tax would increase accordingly by €31 million to €1,332 million and total comprehensive income would increase by €31 million to €2,294 million. As payouts on additional equity instruments would likewise increase by €31 million to €99 million, shareholders' equity remains unchanged as at 31 December 2022.

Commodities
For the first time in the reporting year, UniCredit Bank GmbH recognised holdings of commodities under other assets which are measured at fair value less selling costs pursuant to IAS 2.3 (b).

Estimates, assumptions and discretionary decisions
Changes in estimates are recognised in profit or loss in the period affected by the change in the estimation method. Provided the change in the estimation method does not affect the consolidated income statement, the carrying amount of the asset, liability or equity item concerned is adjusted.

The consolidated financial statements are prepared on the assumption that the Bank will continue as a going concern. Accounting and valuation in accordance with IFRS contains values that have been determined permissibly using estimates and assumptions. The estimates and assumptions used are based on past experience and other factors such as planning, expectations and forecasts of future events that appear reasonable under the present circumstances. This mainly affects the determination of the fair value of certain financial assets and liabilities, impairments in the lending business, deferred taxes, and the accounting and valuation of provisions. The actual values may differ from the assumptions and estimates made.

The following matters in particular are affected by estimates, assumptions and discretionary decisions:

Determination of impairments (IFRS 9):
Scenarios of the expected cash flows of debt instruments serve as a basis for determining the expected credit defaults. This means that, to determine the impairments, assumptions and forecasts regarding probabilities of default must be made for the payments still to be received from the borrower and/or proceeds from the realisation of the collateral and the probability of occurrence of the respective scenario must be estimated. This is carried out collectively for debt instruments at Stage 1 and Stage 2 and for insignificant individual cases at Stage 3 while the assumptions and estimates are made individually for significant individual cases at Stage 3. In the financial year, further uncertainty in making estimates arose in particular from macroeconomic scenarios and post model adjustments on account of the current economic situation.

Determination of fair value:
HVB Group employs internal valuation models to determine the fair value of financial instruments for which no price is available on an active market. The application of these internal valuation models requires, among other things, assumptions and forecasts, the scope of which depends on the complexity of the financial instruments and the valuation parameters partly derived from market data.
Determining the fair value of real estate as non-financial assets also involves a certain degree of discretionary decision-making. As owner-occupied land and buildings (property, plant and equipment) and investment properties are unique, there is generally no observable market data available for such properties. As a result, the value of this real estate is periodically assessed by independent external assessors, using recognised appraisal methods. For example, when using the income approach to determine the fair value of real estate, significant cash flows such as the expected rental income, management costs or other significant parameters such as the expected useful life or the expected vacancy rate are estimated and can subsequently lead to uncertainties in making estimates.

Accounting and Valuation (Continued)

Provisions:
Provisions are recognised for present or future obligations and cover the expenses required to fulfil such obligations. In the process, it is necessary to estimate the amount of this expenses or these costs and also the time when the obligations are expected to be fulfilled. This involves making assumptions about the actual amount of the costs incurred and, in the case of longer-term provisions, also determining possible cost increases up until the date of fulfilment. In the case of provisions for contingent losses (e.g. for provisions for rental guarantees), it is necessary to estimate both the potential inflows and the potential outflows in order to determine the imminent loss as a difference. For details on the assumptions and estimates made regarding pension provisions, we refer to the Note "Provisions".

Deferred tax assets and liabilities:
Apart from a few exceptions defined in the standard, deferred tax assets and liabilities are recognised for all temporary differences between the values recognised in accordance with IFRS and the values recognised for tax-reporting purposes (liability method). Accounting and valuation are performed in accordance with IAS 12 on the basis of local tax regulations that are expected to apply to the period when an asset is realised or a liability is settled. The regulations and applicable local tax rates are taken as a basis that are valid or have already been enacted at the reporting date. Deferred tax assets are not recognised to the extent that it seems unlikely that sufficient taxable profit will be available in future periods. To determine whether sufficient taxable profit will be available in relation to the same tax authority and the same taxable entity in the period in which the deductible temporary difference is reversed, the entire term of the deductible temporary differences is used as the basis for the planning horizon. The assumptions made in this connection are subject to uncertainty, as they present a forecast of future developments.
Furthermore, deferred tax assets are recognised for unused tax losses carried forward and unused tax credits to the extent that their impairment is justified. This is done on the basis of a five-year plan for HVB Group, which is subject to segment-specific and macroeconomic assumptions and takes account of local tax regulations.

Share-based payments:
Assumptions must also be made to determine the cost of share-based payment programmes. The costs of the instruments to be transferred are amortised over the vesting period or the beneficiaries' claims are forfeited if they leave UniCredit first. This makes it necessary to forecast the proportion of employees who will leave UniCredit during the vesting period. At the same time, the shares granted must be measured at fair value at the grant date. The comments made above regarding the determination of fair value are applicable analogously.

Determination of the useful life of property, plant and equipment:
Depreciable items of property, plant and equipment are depreciated over their useful lives. Since the useful life is not independent of the usage of the actual asset in question, it must be estimated in the light of the circumstances in each case by making suitable assumptions.

The accounting, valuation and disclosure principles applied in the 2023 financial year are the same as those applied in the consolidated financial statements for 2022, with the exception of the adjustments described in this note and the new IFRS rules to be applied as described in the Note "First-time adoption of new IFRS accounting rules".

4 First-time adoption of new IFRS accounting rules

New standards and interpretations

The following new standards and interpretations issued by the IASB were subject to mandatory adoption in the EU for the first time in the 2023 financial year.

- IFRS 17 “Insurance Contracts” (issued on 18 May 2017 / adopted into European law on 19 November 2021) including amendments to IFRS 17 (issued on 25 June 2020 / adopted into European law on 19 November 2021) (amended version of IFRS 17).

Amendments to existing standards and interpretations

The amendments to the following standards and interpretations revised by the IASB are subject to mandatory adoption in the EU for the first time in the 2023 financial year:

- Amendments to IAS 1 “Presentation of Financial Statements” and to the IFRS Practice Statement 2 – Disclosure of Accounting Policies (issued on 12 February 2021 / adopted into European law on 2 March 2022).
- Amendments to IAS 8 “Accounting Policies, Changes in Accounting Estimates and Errors” – Definition of Accounting Estimates (issued on 12 February 2021 / adopted into European law on 2 March 2022).
- Amendments to IAS 12 “Income Taxes” – Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued on 7 May 2021 / adopted into European law on 11 August 2022).
- Amendments to IFRS 17 “Insurance Contracts” – Initial Application of IFRS 17 and IFRS 9: Comparative Information (issued on 9 December 2021 / adopted into European law on 8 September 2022).
- Amendments to IAS 12 “Income Taxes” – International Tax Reform: Pillar 2 Model Rules (issued on 23 May 2023 / adopted into European law on 8 November 2023). The temporary exception from accounting for deferred taxes is to be applied immediately after publication of the amendments or their adoption into European law. The disclosure requirements apply to annual reporting periods beginning on or after 1 January 2023.

Pillar Two – global minimum level of taxation

As of the 2024 financial year, the UniCredit corporate group and HVB will fall within the scope of the newly designed Pillar Two regulation as they will, as a multinational group, account for a consolidated turnover of more than €750 million. According to the current status regarding HVB, business units in twelve countries have been identified which all should be considered as potential states participating in Pillar Two. Ultimate parent entity is UniCredit S.p.A.

The Pillar Two regulation provides for an international framework of rules aimed at ensuring that the worldwide profits of multinational groups are subject to tax at a rate not lower than 15% in every jurisdiction in which the groups operate. The rules have been firstly designed by the Inclusive Framework of the OECD and then implemented in the European Union through the EU Council Directive 2022/2523 of 14 December 2022. For most of the EU countries, this Directive is expected to enter into force as of 2024. In Germany, the provisions of the Directive have been transposed into German law through the German Minimum Taxation Directive Implementation Act (Mindestbesteuerungsrichtlinie-Umsetzungsgesetz – MindStG) of 27 December 2023. Certain non-EU Member States in which the UniCredit corporate group and HVB operate have announced that they will implement the Pillar Two rules as of 2024 (e.g. United Kingdom) while other jurisdictions have not yet communicated if and when they will implement such set of rules.

Accounting and Valuation (Continued)

In a nutshell, the Pillar Two rules provide that if in certain jurisdictions where the UniCredit corporate group or HVB operates the effective tax rate (given by the ratio between adjusted accounting results and adjusted corporate income taxes paid in that jurisdiction) falls below 15%, then the UniCredit corporate group will be required to pay an additional tax (so-called top-up tax) to reach the 15% tax rate threshold.

The relevant set of rules also provides for a transition period in which the in-scope multinational groups may avoid undergoing the complex effective tax rate calculation required by the new piece of legislation. In particular, the Pillar Two legislation provides for a transitional safe harbour ("TSH") that applies for the first three financial years following the entry into force of the relevant regulation; the TSH relies on simplified calculations (mainly based on data extracted from Country-by-Country Reporting under BEPS action 13) and three kinds of alternative tests. Where at least one of the TSH tests is met for a jurisdiction where the UniCredit corporate group or HVB operates the top-up tax due for such jurisdiction will be deemed to be zero.

A test is met for a jurisdiction where:

1. revenue and profit before tax are below, respectively, €10 million and €1 million (the de minimis test)
2. the ETR equals or exceeds an agreed rate (the ETR test), or
3. the profit before tax does not exceed an amount calculated as a percentage of tangible assets and payroll expense (the routine profits test).

Even if for the financial year 2023 the Pillar Two rules regarding the countries where the group is present have not entered into force yet and therefore it results in no impact on the tax position for the year 2023, the UniCredit corporate group and HVB have performed an analysis of their potential exposure for Pillar Two top-up taxes. This analysis is based on the most recent information available regarding the financial performance of the constituent entities in the UniCredit corporate group and HVB, according to the 2022 Country by Country Reporting and 2022 financial statements data.

Based on the analysis performed, most of the jurisdictions should benefit from the TSH. Regarding HVB, only one jurisdiction (Italy) might not benefit from the TSH. For Italy, the UniCredit corporate group has provisionally calculated the potential top-up tax exposure with the result that no top-up- tax should be due.

The above analysis has to be considered as an estimate exposure as it was based on the 2022 data, and differences in revenues, costs, local tax regimes etc. may affect the conclusions reached, the analysis performed including the calculation is based on complex regulations that have only recently been enacted with limited guidelines, and not all the relevant data required to perform the full Pillar Two calculation was available. The UniCredit corporate group und HVB are currently preparing their processes for the future usage of simplification regulations, examining potentially favourable option rights, observing the further legislation process and working on further implementation needs (e.g. Tax Compliance etc.).

The UniCredit corporate group and HVB have determined that the global minimum top-up tax is an income tax within the scope of IAS 12. The UniCredit corporate group/HVB has applied the exception regarding potential deferred tax assets and deferred tax liabilities related to Pillar Two Income taxes due to IAS 12.4A.

Implementation and effects of the amended accounting rules
HVB Group implemented the amended accounting rules. Unless the effects of this implementation are explicitly explained below, they did not impact or have any material effects on our consolidated financial statements.

5 Published IFRS that are not yet subject to mandatory adoption and were not early adopted

HVB Group has decided against the voluntary early adoption of the new or revised standards and interpretations issued by the IASB, which are subject to mandatory adoption for the 2024 financial year or later. HVB Group will adopt these standards and interpretations in the financial year in which the new rules in question become subject to mandatory adoption for EU-based enterprises for the first time.

The EU has adopted the following into European law:

– Amendments to IFRS 16 "Leases" – Lease Liability in a Sale and Leaseback (issued on 22 September 2022 / adopted into European law on 20 November 2023). The rules are subject to mandatory adoption for the first time for financial years beginning on or after 1 January 2024.
– Amendments to IAS 1 "Presentation of Financial Statements" – Classification of Liabilities as Current or Non-current (issued on 23 January 2020), Classification of Liabilities as Current or Non-current: Deferral of Effective Date (issued on 15 July 2020) and Non-current Liabilities with Covenants (issued on 31 October 2022). The rules are subject to mandatory adoption for the first time for financial years beginning on or after 1 January 2024.

The EU has not yet adopted the following into European law:

– Amendments to IAS 7 "Statement of Cash Flows" and IFRS 7 "Financial Instruments: Disclosures" – Supplier Finance Arrangements (issued on 25 May 2023). The rules are subject to mandatory adoption for the first time for financial years beginning on or after 1 January 2024.
– Amendments to IAS 21 "The Effects of Changes in Foreign Exchange Rates – Lack of Exchangeability (issued on 15 August 2023). The rules are subject to mandatory adoption for the first time for financial years beginning on or after 1 January 2025.

HVB Group does not expect these new or amended rules to be adopted in the future to have any significant effects on the consolidated financial statements.

6 Companies included in consolidation

The group of companies included in consolidation by HVB Group encompasses 87 (previous year: 107) controlled companies, of which 33 (previous year: 36) are classified as structured entities within the meaning of IFRS 12.

	2023	2022
Total controlled companies	218	254
Consolidated companies	87	107
of which structured entities according to IFRS 12	33	36
Non-consolidated companies	131	147
Joint ventures	—	—
of which accounted for using the equity method	—	—
Associates	3	3
of which accounted for using the equity method	1	1

At the reporting date, we had a total of 133 (previous year: 149) controlled companies, associates and joint ventures in HVB Group that were neither fully consolidated nor fully accounted for using the equity method as they are not of material importance to the Group.

Accounting and Valuation (Continued)

The effects on the balance sheet of the contractual relationships between the Group companies and these non-consolidated companies are included in the consolidated financial statements. The aggregate amounts of net income for the year of these companies that have not been consolidated due to their minor importance make up 0.07% (previous year: 0.19%) of the consolidated profit of HVB Group, while such companies provide around 0.17% (previous year: 0.16%) of the consolidated assets. The aggregate amounts of net income for the year of companies not accounted for using the equity method due to their minor importance (joint ventures and associates) amounts to 0.01% (previous year: 0.11%) of the consolidated profit, their share in the Group capital is 0.0009% (previous year: 0.0002%). Our interests in these companies are carried under the item “Financial assets at FVTPL” and loans extended under the item “Loans and receivables with customers (at cost)”.

Controlled companies

The group of companies included in consolidation has been defined taking into account materiality criteria. The fully consolidated companies prepared their annual financial statements for the period ending 31 December 2023.

In accordance with IFRS 12, 33 (previous year: 36) fully consolidated controlled companies are classified as structured entities. Please refer to the Note “Disclosures regarding structured entities” for more information on structured entities.

There were significant restrictions on the ability of HVB Group to access assets of the controlled companies as follows:
– Subsidiaries classified as credit institutions or financial services institutions for supervisory purposes are subject to the provisions of the German Banking Act (Kreditwesengesetz – KWG), the CRR and MaRisk/ICAAP regarding their capital base. The equity capital to be maintained under these provisions limits the ability of HVB Group to adopt resolutions regarding dividend distributions.
– Fully consolidated structured entities are not generally included in the consolidated financial statements on account of HVB Group’s position as a shareholder. Therefore, HVB Group has no ability to decide on dividend distributions and is bound by the contractual arrangements (such as lending agreements or derivative contracts).

The non-controlling interests at 31 December 2023 have no material effect on the consolidated financial statements of HVB Group either individually or in aggregate. At 31 December 2023, third parties hold non-controlling interests in 38 (previous year: 41) fully consolidated companies. The non-controlling interests are shown separately in the consolidated balance sheet and generally participate in the profits and losses of the companies; their shareholders hold voting rights in the companies, but without breaking the controlling influence of HVB Group.

The following companies were newly added to the group of companies included in consolidation at HVB Group in 2023:
– Elektra Purchase No. 79 DAC, Dublin
– Monnet 8-10 S. à r.l., Luxembourg

The following companies left the group of companies included in consolidation of HVB Group in 2023 due to merger, accretion, imminent or completed liquidation or cessation of control:
– Acis Immobilien- und Projektentwicklungs GmbH & Co. Stuttgart Kronprinzstraße KG, Grünwald
– Bayerische Wohnungsgesellschaft für Handel und Industrie Gesellschaft mit beschränkter Haftung, Munich
– Elektra Purchase No. 57 DAC, Dublin
– Elektra Purchase No. 64 DAC, Dublin
– Elektra Purchase No. 911 DAC, Dublin
– Grundstücksgesellschaft Simon beschränkt haftende Kommanditgesellschaft, Munich
– HAWA Grundstücks GmbH & Co. OHG Immobilienverwaltung, Munich
– HVB Gesellschaft für Gebäude mbH & Co KG, Munich
– Merkurhof Grundstücksgesellschaft mit beschränkter Haftung, Munich
– Omnia Grundstücks-GmbH & Co. Objekt Perlach KG, Munich
– Orestos Immobilien-Verwaltungs GmbH, Munich
– Portia Grundstücks-Verwaltungsgesellschaft mbH & Co. Objekt KG, Munich
– Salvatorplatz-Grundstücksgesellschaft mbH & Co. OHG Saarland, Munich
– Salvatorplatz-Grundstücksgesellschaft mbH & Co. OHG Verwaltungszentrum, Munich
– TIVOLI Grundstücks-Aktiengesellschaft, Munich
– TRICASA Grundbesitzgesellschaft des bürgerlichen Rechts Nr. 1, Munich
– TRICASA Grundbesitz Gesellschaft mbH & Co. 1. Vermietungs KG, Munich
– UniCredit Leasing Aviation GmbH, Hamburg
– Wealthcap Immobilien Deutschland 46 GmbH & Co. KG, Munich
– Wealthcap Objekt Dresden GmbH & Co. KG, Munich
– Wealthcap Objekt Trudering GmbH & Co. KG, Munich

The following company left the group of companies included in consolidation in 2023 for materiality reasons:
– Altus Alpha Plc, Dublin

On account of the deconsolidation of the companies listed above, HVB Group realised a deconsolidation result of minus €2 million (previous-year period: minus €4 million) in the income statement under the item "Net gains/losses on remeasurement of consolidated companies" in accordance with IFRS 10.25.

Associates
No financial statements at 31 December 2023 were available for the associate listed below accounted for using the equity method when the consolidated financial statements were prepared. The following financial statements were used for accounting using the equity method:

Comtrade Group B.V., Rotterdam	30 September 2023

There were no significant events at this company between the date when the above financial statements were prepared and 31 December 2023 that could have an impact on the assets, liabilities, financial position, and profit or loss.

The group of consolidated companies does not include any companies for which the proportionate consolidation method is applied.

Accounting and Valuation (Continued)

7 Principles of consolidation

An enterprise (or economically separate entity) is fully consolidated when it is controlled by HVB Group. Control is deemed to exist when the following three criteria defined in IFRS 10 are met: HVB Group must have power over the relevant activities of the enterprise and be exposed to variable returns from it. In addition, HVB Group must be able to use its power to influence the variable returns it obtains from the enterprise.

Control is independent of the type of financial relationship between parent company and subsidiary and does not require any participation in the enterprise's capital. Control may also be derived from contractual arrangements or legal provisions.

To assess whether an enterprise is controlled by HVB Group, a detailed analysis must be carried out of the business purpose, the relevant activities of the enterprise, the parties involved and the distribution of the variable returns from the enterprise. The analysis includes an assessment of whether HVB Group is acting as the principal and has delegated power over the enterprise to a third party (agent). This may be the case when the decision-maker who has power over the enterprise does not pursue its own economic interests in respect of the enterprise or these are of minor importance and the decision-maker merely exercises delegated decision-making powers on behalf of HVB Group.

An enterprise is initially consolidated as soon as HVB Group gains control over the enterprise. During initial consolidation, the assets and liabilities of the enterprise are included at their fair values at the effective date. The uniform Group accounting and valuation policies are then applied. The expenses and income of the respective company are included in the consolidated income statement from the effective date of initial consolidation. Equity interests in a consolidated company held by third parties are carried under minority interests, provided the criteria for disclosure as shareholders' equity are met. Otherwise, they are recognised as debt.

Consolidation is performed by offsetting the acquisition cost of a subsidiary against the Group's share held in the completely remeasured shareholders' equity at the time of acquisition, provided the transactions involved are not internal to UniCredit. This amount represents the difference between the assets and liabilities of the acquired enterprise measured at the fair value at the time of initial consolidation. The difference between the higher acquisition cost and the remeasured net balance of assets and liabilities is recognised as goodwill under intangible assets in the balance sheet on a prorated basis if the enterprise acquired is a business. If in an exceptional case the enterprise that is being consolidated for the first time is not a business and is a group of assets and liabilities instead, these assets and liabilities are measured and recognised in line with the applicable IFRS following the requirements of IFRS 3.2b. Any difference between the net carrying amounts calculated in this manner and the acquisition cost is recognised as an expense. Goodwill on enterprises accounted for using the equity method is carried under "Investments in associates and joint ventures accounted for using the equity method". Compliant with IAS 36, scheduled amortisation is not taken on goodwill. The goodwill is allocated to the cash-generating units (CGU) that are expected to benefit from the synergies arising from the business combination. At HVB Group, these cash-generating units are the business areas. Where the commercial activities of an enterprise span more than one business area, the goodwill is distributed in line with the expected contribution to results at the time of acquisition. There is no goodwill to report in the reporting year or in the previous year.

IFRS 3 is not applicable to combinations of businesses under common control (IFRS 3.2 (c)). IAS 8.10 requires an appropriate accounting and valuation policy to be developed accordingly for such cases. Given that HVB Group is part of UniCredit, the carrying amounts of the parent company are retained for company acquisitions within UniCredit. Any difference between the purchase price paid and the net carrying amount of the enterprise acquired is recognised in equity under reserves.

Compliant with IAS 28, investments in associates are accounted for using the equity method or the capital share method and disclosed as such in the balance sheet. HVB is able to exercise significant influence over associates without being able to control them. Significant influence is assumed when an enterprise holds more than 20% but less than 50% of the voting rights in an investee. This assumption of association can be refuted where a qualitative analysis demonstrates that significant influence over the financial and business policy decisions of the investee is not possible. Investments in associates are recognised at cost upon initial inclusion in the consolidated financial statements. For the purposes of subsequent measurement, the carrying amount increases or decreases in accordance with HVB's share in the profit or loss of the investee. This share of the investee's profit or loss attributable to HVB is measured on the basis of the fair values of the investee's assets, liabilities and contingent liabilities when the shares were acquired. The accounting and valuation principles of HVB Group are applied for subsequent measurement.

Business transactions between consolidated companies are offset. Any interim profits or losses arising from intragroup transactions are eliminated.

8 Implementation of the European Single Electronic Format (ESEF)

HVB fulfils its obligation under Section 328 HGB to publish these consolidated financial statements in the single electronic reporting format (ESEF) prescribed by law by publishing them in the German Federal Gazette (Bundesanzeiger). The 2022 ESEF taxonomy was applied for both the reporting year and the previous year.

9 Financial instruments

A financial instrument is any contract that gives rise to both a financial asset of one company and a financial liability or equity instrument of another company.

The classes required by IFRS 7.6 are defined as follows:
– Cash and cash balances
– Financial assets and liabilities held for trading
– Financial assets at FVTPL
– Financial assets at FVTOCI
– Loans and receivables with banks (at cost)
– Loans and receivables with customers (at cost)
– Hedging derivatives
– Other deposits from banks
– Other deposits from customers
– Other debt securities in issue
– Financial liabilities at FVTPL
– Financial guarantees and irrevocable credit commitments

Accounting and Valuation (Continued)

Finance lease receivables are no longer defined as a separate class in the reporting year. Instead these are combined with the loans and receivables with customers (at cost) class. The respective business operations were conducted primarily by the HVB subsidiary UniCredit Leasing GmbH with its subsidiaries. These already discontinued conducting new business in August 2020 and have been handling the existing volume of business since then. Against this backdrop, there has been a significant decline in the portfolio of finance lease receivables with the result that it is no longer necessary to present these as a separate class for reasons of materiality. The volume of finance lease receivables, which consists solely of loans and receivables with customers, is shown in the Note “Loans and receivables with customers (at cost)” as a separate loan type.

With regard to the classes, the balance sheet disclosures and profit contributions of the financial instruments, among other things, must be presented separately in accordance with IFRS 9 measurement categories. In the present consolidated financial statements, we have included these in the explanatory notes to the balance sheet and the income statement. The information required by IFRS 7 regarding risks in connection with financial instruments is also provided in the notes to the consolidated financial statements and in part in the Risk Report within the Combined Management Report. For information on credit risk, market risk and liquidity risk, please refer to the subsection with the same name in the section “Risk types in detail” in the Risk Report. Compliant with IFRS 7.36 (a), the maximum exposure to credit risk is the same as the carrying amount of the risk-bearing financial instruments or, in the case of financial guarantees and credit commitments, the nominal amount disclosed in the Note “Fair values of financial instruments compliant with IFRS 7” for the guarantee/amount of the credit commitments not yet utilised.

IFRS 9 requires all financial instruments to be recognised in the balance sheet, classified in the given measurement or portfolio categories and measured in line with this classification. In addition, debt instruments are to be allocated to a business model.

Financial assets and liabilities are initially recognised from the date on which the corporate group becomes a contractual party to the financial instrument in question. HVB Group normally recognises customary market purchases and sales of financial assets (known as regular way contracts) at the settlement date. Derivatives are recognised at the trading date.

Financial assets are derecognised when either the contractual rights or obligations to pay have expired, for example due to repayment, or all the risks and rewards have essentially been transferred to third parties. In exceptional cases, a significant change in the contractual terms of receivables measured at cost also leads to derecognition. HVB Group did not carry out any transactions in which all the risks and rewards were essentially either transferred or retained. Transactions where the contractual rights to an asset are transferred to third parties but the risks and rewards are essentially retained do not result in the derecognition of the assets.

A liability is derecognised if it has been settled or, in exceptional cases, if there has been a significant amendment in the contractual terms of the liability.

The regulations set forth in IFRS 9 on reclassification were observed. No reclassifications were carried out.

Financial assets and liabilities at fair value through profit or loss

The financial assets and liabilities at fair value through profit or loss category is subdivided into the following subcategories:

- Financial assets and liabilities held for trading:
  Financial assets and liabilities classified as held for trading at the time of initial recognition are financial instruments acquired or incurred for the purpose of short-term profit-taking as a result of changes in market prices or of realising a profit margin. This category also includes all derivatives (apart from hedging derivatives) which qualify for hedge accounting. These are disclosed in the item “Financial assets held for trading” and “Financial liabilities held for trading”.
  In accordance with the provisions of IAS 32 (IAS 32.42 in conjunction with IAS 32.48), the positive and negative fair values of OTC derivatives that offset each other at currency level were set off for OTC derivatives concluded with the same central counterparty (CCP).
- Assets mandatorily at fair value through profit or loss with the exception of held-for-trading portfolios:
  In accordance with the specifications, both shareholdings and assets that are neither allocated to the “Hold-to-maturity” nor to the “Held-for-sale” business model are generally subject to measurement at fair value through profit or loss. HVB Group did not exercise the option of measuring shareholdings at fair value without affecting profit or loss. As all assets measured at fair value through profit or loss are also managed on a fair value basis, any allocation of assets that do not meet cash flow criteria to the “Hold-to-maturity” business model is ruled out. These are to be allocated to the “Other” business model and are consequently subject to mandatory measurement at fair value through profit or loss.
- HVB Group only uses the fair value option for certain financial liabilities designated as “at fair value through profit or loss” upon initial recognition. Financial instruments are designated on the basis of the fair value-based management of the portfolios concerned.

Financial assets and liabilities at fair value through profit or loss are disclosed upon initial recognition at their fair value without any transaction costs.

Consequently, held-for-trading portfolios, assets mandatorily at fair value through profit or loss as well as liabilities allocated to the fair value option are measured at fair value. Changes in value are recognised in the income statement.

Assets measured at fair value without affecting profit or loss

Certain securities holdings that are either held to maturity or can be sold have been allocated to the “Held-for-sale” business model. As these securities also meet cash flow criteria, the conditions for measurement at fair value without affecting profit or loss have been met. These holdings are reported under the balance sheet item named “Financial assets at FVTOCI”.

Accounting and Valuation (Continued)

Loans and receivables measured at cost
In the lending business, HVB Group focuses on customer care and customer relationships so the intention is generally to hold extended loans to maturity. If, in exceptional cases, there is no intention to hold loan receivables to maturity at the time of their addition, these are allocated to the "Other" business model. Provided the loans also meet cash flow criteria, these are allocated to the “Hold-to-maturity” business model and measured at amortised cost. In addition, securities holdings that meet cash flow criteria and are intended to be held to maturity are also measured at amortised cost. Premiums and discounts are taken to the income statement under net interest over the term of the underlying items. This is done using the effective interest method. These assets are disclosed upon initial recognition at their fair value including any transaction costs.

As the intention is generally to hold to maturity, debt instruments allocated to the “Hold-to-maturity” business model may be sold only in the following exceptional cases:
– sales occur infrequently or irregularly even if they are of significant value in this case,
– sales, if they occur frequently, are individually or in the aggregate of insignificant value,
– sales occur just before the final maturity date and the sales proceeds equal the outstanding contractual payments for the most part or
– sales are made as a result of an increase in the credit default risk.

Depending on the allocation of the debtor, the loans and receivables measured at cost are reported under the balance sheet item “Loans and receivables with banks (at cost)” or “Loans and receivables with customers (at cost)”.

HVB Group has not designated any assets at fair value through profit or loss.

IBOR reform: Modification of financial instruments in the course of the IBOR transition
On account of the IBOR reform, changes may occur in the contractual cash flows of a financial instrument in the following ways:
– Change from an existing interest rate benchmark to an alternative benchmark rate under a contractual agreement or an already existing fallback clause in an agreement with spreads that can be agreed to offset a basis difference between the interest rate benchmarks, or
– Adjustment in the method used to calculate an unchanged designated interest rate benchmark (e.g. EURIBOR)

These adjustments to agreements on contractual cash flows do not result in any significant modification of the instrument which means that derecognition is not necessary. Instead, the changes in interest rate benchmarks in the context of the IBOR reform constitute an adjustment in variable interest rates, which must be accounted for by a prospective adjustment in the effective interest rate pursuant to IFRS 9.B5.4.5. If the financial instruments concerned are to be accounted for at fair value, the changes made in the interest rate benchmarks must be taken into account in the fair value measurement. If compensation payments were made for derivatives in the course of the change in interest rate benchmarks, these were recognised in the fair value measurement of the derivatives through profit or loss.

Determination of fair value
We can normally reliably determine the fair value of financial instruments to be measured at fair value. IFRS 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (no forced liquidation or distress sale) between independent market participants as at the measurement date. Thus, the fair value based on a notional transfer corresponds to a selling price or, in the case of a liability, the transfer price (exit price).

The fair value is determined using the same three-level fair value hierarchy under IFRS 13 as is applicable for the disclosures regarding the fair value hierarchy (Note “Fair value hierarchy”):
- Level 1: Financial instruments measured using (unadjusted) quoted prices in active markets for identical assets or liabilities that the entity can access at the measurement date
- Level 2: Assets or liabilities for which no price can be observed on an active market and whose valuation is derived from valuation parameters that are directly observable (prices) or indirectly observable (derived from prices)
- Level 3: Assets or liabilities for which the fair value cannot be measured exclusively on the basis of observable market data; but also on valuation parameters based on model assumptions (non-observable valuation parameters)

Suitable measurement adjustments are applied to the fair value determined in this way in order to reflect further factors affecting the fair value (such as the liquidity of the financial instrument or model risks when the fair value is determined using a valuation model). When determining these valuation adjustments, we have exercised the option permitted by IFRS 13 under certain circumstances to determine fair value on a portfolio basis.

The risk of a counterparty defaulting on derivatives is covered by credit valuation adjustments (CVAs). Funding valuation adjustments (FVAs) are also set up for derivatives that are not fully covered by relevant collateral.

The own credit spread is also included in the underlying valuation parameters for liabilities held for sale and liabilities designated at fair value through profit or loss.

Further disclosures regarding fair values and the fair value hierarchy are given in the Note “Fair value hierarchy”, and the Note “Fair values of financial instruments compliant with IFRS 7”.

Accounting and Valuation (Continued)

Financial guarantees
A financial guarantee is a contract that requires the issuer to reimburse the holder for a loss it incurs because a specific debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

Viewed overall, the fair value of a financial guarantee is zero when the contract is concluded because the value of the premium received will normally match the value of the guarantee obligation in standard market contracts. The guarantee premium is recognised on a pro-rata basis. These are measured using the model for expected credit losses.

Credit derivatives, and most notably standardised credit default swaps (CDS), are measured at fair value through profit or loss as they are considered derivatives held for trading and not financial guarantees.

Credit commitments
Credit commitments represent declarations made to the customer to extend loans, buy securities or provide guarantees and acceptances. If these have not yet been utilised, they are generally shown as contingent liabilities in the notes. These are measured using the model for expected credit losses. An exception to this rule are credit commitments where the assets resulting from utilisation are usually sold shortly after the loan has been extended. The latter are recognised at fair value through profit or loss.

Hedge accounting
The Bank exercised the option of continuing to apply the provisions of IAS 39 on Hedge Accounting.

Hedges between financial instruments are recognised almost exclusively in accordance with the forms of the fair value hedge described in IAS 39. In 2008 and 2009, HVB Group changed the previously applied macro cash flow hedge accounting to the fair value hedge similarly permitted by IAS 39 for interest rate risk at portfolio level in large areas of asset/liability interest rate risk management. This is described additionally below along with the principles covering general fair value hedges. The hedge accounting approaches used in HVB Group are presented in the Note “Gains/losses on financial assets and liabilities at fair value”.

A micro fair value hedge is generally a hedge of the exposure to changes in the fair value of a recognised asset, liability or an unrecognised firm commitment (or portions thereof) that is attributable to a particular risk and that might affect net income for the period. In this respect, a high level of effectiveness is required, with the changes in the fair value of the hedged item in terms of the hedged risk and hedging derivative compensating each other within a range of 80% to 125%. In fair value hedge accounting, the hedging instrument is measured at fair value through profit or loss. The carrying amounts of the hedged item are adjusted by the valuation results relating to the hedged risk in a way that affects the income statement.

At our Bank, we designated micro fair value hedges for interest rate risks. For fixed-interest European government bonds or bonds of issuers with a similar risk allocated to the “Held for sale” business model, the interest rate risk of which was hedged individually and completely with interest rate swaps, we set up a separate micro fair value hedge for each transaction.

We apply the portfolio fair value hedge for interest rate risk in the accounting treatment of interest rate risk in asset/liability interest rate risk management. Recognising a fair value hedge for a portfolio of interest-bearing financial assets and liabilities using interest rate derivatives makes it possible to largely reflect the standard bank risk management procedures for the hedging of fixed interest rate risks in the accounts.

In this accounting treatment of hedges across several items, the changes in the value of the hedged amount of the hedged items attributable to the hedged risk are carried altogether as a separate asset or liability item and not as an adjustment to the carrying amount of individual items as is the case with micro hedges. The hedged amount of the hedged items is determined as part of interest rate risk management and cannot be directly allocated to individual assets or liabilities. Where the hedge conditions are met, the offsetting changes in value of the hedged amount of the hedged items and the hedging instruments (interest derivatives) are recognised directly in profit and loss. Hedge inefficiencies arising within the necessary hedge efficiency thresholds of 80% to 125% are recognised as profit or loss in net hedging income.

Furthermore, for economic reasons cross-currency interest rate swaps (CCIRS) have been used in the refinancing of loans denominated in foreign currency. The CCIRS exchange longer dated fixed-interest positions denominated in euros for variable-yield positions denominated in foreign currency. This serves to hedge the hedged item accordingly against interest rate risk as part of the portfolio fair value hedge. The currency component contained in the CCIRS is not included in the recognised hedge relationship. The fair value result includes the total change in value of the CCIRS.

In 2008 and 2009, HVB changed the hedge accounting for macro-interest rate management from a cash flow hedge approach to a portfolio fair value hedge approach. The changes in value of the same hedged items and hedging derivatives arising after the changeover date were recognised based on the new portfolio fair value hedge model. The cash flow hedge reserve existing at the time of the changeover and the equally high, offsetting clean fair values of the existing cash flow hedge derivatives have since been amortised over the remaining term of the hedging derivatives with a compensatory effect in net interest. This means that the amortisation of the cash flow hedge reserve will have no net impact on profit or loss until it is completely eliminated. In the meantime, the cash flow hedge reserve for this cash flow hedge terminated in 2008 and 2009 has been almost completely eliminated apart from a residual amount of €10 million. Taking into account the future reduction in the cash flow hedge reserve based on the amortisation plan and cost-benefit considerations, further amortisation over the remaining residual term until 2047 no longer appears necessary. HVB has therefore derecognised the existing cash flow hedge reserve and the as yet unamortised clean fair values of the previous cash flow hedge derivatives in net interest in line with the procedure to date. As with the previous compensatory amortisation, this procedure has no effect on profit or loss.

Generally, a cash flow hedge is employed to hedge the risk arising from volatile cash flows resulting from a recognised asset, recognised liability or planned transaction to be taken to the income statement. For example, derivatives are deployed in cash flow hedge accounting to hedge future interest payment flows. In this context, payments arising from variable-interest assets and liabilities are swapped for fixed payments primarily using interest rate swaps. Hedging instruments are measured at fair value. The valuation result is divided into an effective and an ineffective portion. The effective portion of the hedging instrument is recognised in a separate item within shareholders' equity (hedge reserve) without affecting reported profit or loss. The ineffective portion of the hedging derivatives is recognised directly in profit and loss. The hedged item is recognised at amortised cost.

Accounting and Valuation (Continued)

10 Financial assets held for trading

This item includes securities held for trading purposes and positive fair values of traded derivatives. All other derivatives not classified as hedging derivatives (which are shown separately in the balance sheet) are similarly considered held for trading. Provided they are held for trading purposes, receivables from repurchase transactions, promissory notes, registered bonds and treasury bills are carried as other financial assets held for trading.

Financial assets held for trading are carried at fair value. Gains and losses from the valuation and realisation of financial assets held for trading are reported under net trading income in the income statement.

For interest rate derivatives in hedge accounting, interest is recognised in the same way as the hedged item regardless of whether it is a negative or positive figure. For economic hedge relationships, the two offsetting interest payment flows are aggregated for each swap contract and reported in net terms as interest income or interest expense. In the case of pure derivative trading portfolios, we report the netted interest payments under net trading income.

11 Financial assets at FVTPL

The item "Financial assets at FVTPL" reflects the measurement category introduced by IFRS 9 and contains all the assets subject to the IFRS requirement of measurement at fair value with the exception of the held-for-trading portfolios. This item thus contains all the debt instruments subject to measurement at fair value through profit or loss based on the "Other" business model as well as the shareholdings also subject to measurement at fair value through profit or loss. This includes debt instruments to be held to maturity that do not meet cash flow criteria and are thus managed on a fair value basis in line with the Bank's specifications.

The majority of debt instruments are hedged against interest rate risks with interest rate swaps. The changes in fair value of the assets and hedging derivatives are reported in the item "Net gains/losses on financial assets and liabilities at fair value" in the income statement. Current interest income from debt instruments is recorded as interest income and profit distributions from shareholdings in the item "Dividends and other income from equity investments".

12 Financial assets at FVTOCI

The balance sheet item "Financial assets at FVTOCI" reflects the IFRS 9 measurement category. This item contains all the assets measured at fair value through other comprehensive income on the basis of the "Held-for-sale" business model and the cash flow criteria met.

This item only contains interest-bearing assets that are deferred at the effective interest rate. Upon addition, they are posted at their fair value including transaction costs (acquisition cost). Current interest income is recorded under the item "Interest income" in the income statement. Impairments are recorded through profit or loss in the income statement. The difference between the amortised cost calculated in this way and the fair value of the assets is entered directly in equity in the FVTOCI reserve, whereby the changes are recognised or derecognised through other comprehensive income. A gain or loss on disposal (repayment/sale) is shown under the item "Net gains/losses on financial assets and liabilities at fair value".

13 Loans and receivables

Debt instruments allocated to the "Hold-to-maturity" business model are shown under the balance sheet items "Loans and receivables with banks (at cost)" and "Loans and receivables with customers (at cost)". Assets allocated to a business model other than to the "Hold-to-maturity" business model are not included in the balance sheet items "Loans and receivables with banks (at cost)" and "Loans and receivables with customers (at cost)". In addition to loans and receivables from the lending business, these include securities allocated to the "Hold-to-maturity" business model. All the instruments allocated to the "Hold-to-maturity" business model meet the cash flow criteria and are carried at amortised cost, provided they are not hedged items of a recognised micro fair value hedge. The amount shown in the balance sheet has been adjusted for allowances for losses on loans and receivables.

14 Impairment of financial assets

Impairment losses are determined in line with IFRS 9 requirements for financial instruments that are measured at amortised cost or at fair value through other comprehensive income. Furthermore, the rules applicable for determining an impairment loss are also applied to credit commitments or financial guarantees that are not measured at fair value through profit or loss.

The expected credit losses are calculated by multiplying the risk parameters probability of default (PD), loss given default (LGD) and exposure at default (EaD). For details on the presentation of the measurement and management of credit risk, please refer to the statements made on credit risk in the “Risk Report” section of this Combined Management Report.

In the case of loans and receivables measured at cost, the impairment losses determined are posted to an impairment account and reduce the carrying amount; in the case of assets measured at fair value through other comprehensive income, the impairment losses are determined in relation to the asset and, as a consequence of measurement at fair value, are recognised in the statement of total comprehensive income, whereas a provision is set aside for impairment losses on credit commitments and financial guarantees.

HVB Group has not exercised the option of using the simplified approach pursuant to IFRS 9.5.5.15 for determining impairment losses on trade receivables, contract assets and lease receivables.

The method of calculating impairment losses is based on two pillars (taking into account forward-looking information and macroeconomic factors):
– allocation of the asset to a stage
– calculation of the expected loss associated with the asset

Allocation to a stage

The three-stage model introduced under IFRS 9 is to be applied consistently to financial instruments that are measured either at amortised cost or at fair value through other comprehensive income. Net write-downs of loans and provisions for guarantees and commitments take into account either the expected losses in the form of one-year losses or the lifetime expected credit loss. Depending on the extent to which the credit risk has increased since initial recognition, the model distinguishes between three stages:
– Stage 1 contains all the financial instruments for which there has been no significant increase in credit risk at the reporting date compared with the date of initial recognition; the expected losses are determined for these in the amount of the 1-year losses.
– Stage 2 contains financial instruments which, although not yet in default, have undergone a significant increase in credit risk since initial recognition; the expected losses are calculated in the amount of the default probability-weighted credit losses of the borrower over the residual period (lifetime expected credit loss).

Accounting and Valuation (Continued)

– Stage 3 contains credit-impaired financial instruments. IFRS 9 does not include a definition of the term “default”. Instead, it requires the reporting entity to provide its own definition that is consistent with its credit risk management practice and is applied consistently to all PD, LGD and EAD parameters. HVB Group defines the term “default” in line with the definition of debtor default according to Article 178 CRR. In particular, the different treatment of multiple defaults in the internal PD, LGD and EAD models is retained in order to preserve internal consistency with IRB approaches as these provide important input data for the IFRS 9 models for the determination of the expected credit loss. In this context, it should be noted that, in addition to quantitative criteria, qualitative criteria are also taken into account for determining a default.

An impairment loss is generally recognised at the amount of the expected 12-month credit losses for a financial instrument upon initial recognition (Stage 1). Financial assets already impaired upon initial recognition are an exception to this rule. The accounting for these instruments is described below in this note under “Impairment losses on receivables in default (Stage 3)”.

HVB Group has exercised the option pursuant to IFRS 9.5.5.10 according to which it can be assumed for financial instruments with a low credit default risk that no significant increase in the credit default risk has occurred. If there is an investment grade rating available, the financial instruments concerned are allocated to Stage 1. An investment grade rating exists if there is a one-year IFRS 9 PD of less than 0.306%.

In the notes to the respective balance sheet items, the tables on changes in gross carrying amounts and impairments include information on the transfers between the respective stages. The table on changes in impairments shows, as a transfer from one stage to another due to the change in credit quality, the reversals of the impairments upon disposal in the original stage and the addition to the impairments in the new stage.

Method for determining a significant increase in the credit risk (transfer to/from Stage 2)
To identify a significant increase in credit risk leading to a transfer from Stage 1 to Stage 2, the Bank has chosen a statistical approach which applies both quantitative and non-quantitative transfer criteria. The aim is to define a trigger level for the maximum acceptable deviation between the PD measurement upon initial recognition of the financial instrument and the PD as at the reporting date. If the credit risk has significantly increased on the reporting date, the financial instrument is transferred to a different stage. As soon as the credit risk has decreased again, it is transferred from Stage 2 to Stage 1 taking account of a risk-based probation period. The defined trigger levels are determined for each homogeneous portfolio (for example retail, corporate customers). This represents a quantile in each case that determines the average expected portfolio deterioration that is calculated taking account of the default rate. The financial instruments classified at Stage 2 fluctuate around the quantile depending on the current economic environment and expectations about the future economic cycle, whereby the fluctuations might be greater if the macroeconomic information is specified by sector.

Quantitative criteria: transfer risk model

The target quantitative transfer criterion is based on the idea that a credit risk is considered to have increased significantly if the ratio between the lifetime PD as at the reporting date and the lifetime PD on initial recognition (extension of credit) exceeds a predefined trigger level that was determined on the basis of historical data. The most important influencing factors for the quantitative transfer criterion are the estimated probabilities of default of the debtor (PD) on initial recognition, the residual term and the age of the financial instrument as at the reporting date.

A statistical model based on quantile regression was introduced to implement the quantitative component for the allocation of assets to stages. The quantiles and how the individual influencing factors are taken into account (such as the PD on the date of the commitment, age and residual term) differ depending on the portfolio. Essentially, the historical default rate of the portfolio concerned is used as a basis to determine the quantile.

Qualitative criteria for allocation to Stage 2

In addition to the quantitative transfer criteria from the statistical transfer model, further criteria are defined that trigger a transfer in levels. For example, the payment default criterion (30 days past due) is taken into account as a qualitative Stage 2 criterion. Moreover, the qualitative criteria for a transfer to Stage 2 have been expanded and are based on both specific criteria and internal processes. This serves to ensure that changes indicating financial difficulties automatically and rapidly result in a transfer. This includes:

– Tripling of the lifetime PD at the reporting date: a transfer to Stage 2 is triggered if the lifetime PD at the reporting date is three times higher than the PD on initial recognition of the financial instrument, provided that the financial instrument is not classified as a financial instrument with a low credit risk as defined by IFRS 9.5.5.10. Such an approach is in line with the general expectation that was addressed to banks in the ECB's letter entitled "Identification and measurement of credit risk in the context of the coronavirus (Covid-19)" and is also contained in the ECB Asset Quality Review Manual.
– Application of a trigger level for the PD of at least 20% as a criterion for Stage 2: this trigger level serves to identify financial instruments that have a high risk of being migrated to Stage 2 or even to Stage 3. This trigger level is also described in the ECB Asset Quality Review Manual.
– Application of qualitative Stage 2 criteria to include results from internal credit risk monitoring processes: debtors subject to close, internal credit monitoring are allocated to Stage 2 as inclusion in closer internal credit monitoring is likewise seen as a significant increase in the credit risk.
– Another criterion for allocation to Stage 2: non-defaulting debtors to whom concessions were made due to current or expected financial problems to maintain principal payments and solvency are allocated at least to Stage 2 (forborne performing).
– Application of a three-month probation period for a transfer from Stage 2 to Stage 1 if quantitative and/or qualitative conditions underlying the significant increase in credit risk are not met. IFRS 9.B5.5.27 implies that a debtor must furnish proof of consistently good payment conduct over a specific period before the credit risk can be considered to be lower. In line with this, a probation period has been introduced, which means that after a debtor's creditworthiness has improved or after meeting the criterion for transfer to Stage 1, the debtor must generally meet the criteria for allocation to Stage 1 for a further three months before the transfer is actually made. A risk-based probation period is applied solely for non-defaulting forborne cases. This ensures that the transactions remain at Stage 2 for a minimum period that complies with the regulatory probation period/minimum duration before they are allocated to Stage 1 again. This serves to prevent a premature transfer to Stage 1 as the debtor still has an increased credit risk compared with the other financial instruments in Stage 1.

Accounting and Valuation (Continued)

Determination of the expected credit loss (ECL)
In the process of determining the expected credit losses, not only reliable information on past events is taken into account but also the current conditions and forecasts of future economic parameters. The regulatory procedures for the determination of the PD, LGD and EaD represent the starting point in this connection. These parameters are then adjusted to meet IFRS 9 requirements essentially as follows:

– Conservative elements arising purely from regulatory requirements were removed. This primarily applies to conservativity premiums, adjustments to phases of economic weakness, minimum regulatory requirements and indirect costs. Furthermore, all legally valid collateral has been taken into account.
– Parameters were adjusted in order to move from a regulatory calculation based on long-term averages (through the cycle) to a calculation related more to the reporting date (point in time) that takes greater account of the current macroeconomic situation.
– In addition, forward-looking information in scenario analyses is included and taken into account in the parameters.
– The credit risk parameters were adjusted to the multi-year horizon required in Stage 2.

The following adjustments were made to the individual parameters:

– To determine a multi-year probability of default, which covers the lifetime of a financial instrument, PD curves, which are based on long-term averages and calculated on the basis of the default rates of the corresponding portfolios, are determined as a first step. These PD curves are then adjusted to a perspective that relates more to the reference date using statistical methods. In addition, adjustments are made to integrate macroeconomic forecasts over the next three years.
– To calculate a multi-year probability of loss, the LGD used for regulatory purposes are adjusted for conservative elements arising purely from regulatory requirements. Furthermore, a check is conducted to determine whether it is necessary to adjust the figures calculated on the basis of long-term averages to current framework conditions and, where required, they are adjusted. In addition, the recovery rate is adjusted for the next three years on the basis of a macroeconomic forecast. For material collateral, macroeconomic forecasts are included in the forecast of the determination of the market value. Downturn adjustments required for regulatory purposes are not used. Nor are any internal costs of the Bank added to the loss ratio in the course of treating defaulting exposures. In the reporting year, the new LGD model developed according to the EBA “Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures“ was introduced as an IRB model.
– To determine the multi-year exposure at default (EaD), the parameters used by the regulatory authorities are adjusted for conservative elements due purely to regulatory requirements. A parameter used from a regulatory perspective which covers drawdowns in excess of the existing credit line is not used under IFRS 9. An additional parameter was also introduced which reflects the expectations on average drawdowns of existing lines from the second year. Furthermore, a parameter representing an expected contractual term for loans without a fixed term is modelled which decisively determines the term over which an expected loss is calculated in Stage 2. For loans with existing repayment schedules, expected repayments are taken into account in determining the multi-year exposure at default.

Models from the Group's central stress test area are used to adjust the PD and LGD parameters in order to calculate the expected loss. These model the relationship between macroeconomic development and the resulting development of the PD and LGD. The parameters are adjusted on the basis of the baseline scenario by the respective differences determined for the three forecast years. The forward-looking information is updated twice a year to reflect the latest macroeconomic conditions.

In addition, the expected loss is adjusted by a factor that equalises the partial non-linearity that may be contained in the correlation between macroeconomic changes and the change in the expected loss. This means that from the three scenarios, taking account of the weighting, an adjustment factor is calculated which is applied directly to the expected loss.

Forward-looking macroeconomic scenarios
The process for incorporating macroeconomic scenarios into the ECL determination is consistent with other forecasting processes in risk management (e.g. as part of the EBA stress tests and the ICAAP framework) and benefits from UniCredit's independent research department.

Three macroeconomic developments to be expected in the future are identified. In addition to the probable scenario (baseline scenario), a positive scenario and an adverse scenario are also estimated. The baseline scenario represents the central scenario and is considered to be the most likely to occur. The positive and the adverse scenarios represent other possible occurrences, each depicting better or worse economic developments in the countries relevant for the Bank compared with the baseline scenario. The individual scenarios are attributed probabilities of occurrence.

At year-end 2023, the baseline scenario is attributed a probability of occurrence of 60%, the adverse scenario 40% and the positive scenario 0%.

The multifaceted effects on the global economy in the wake of the COVID-19 pandemic, the invasion of Ukraine by Russian forces in February 2022 and the situation in the Middle East remain complex and severe. At year-end 2023, there is still uncertainty in assessing risks, some of which are interdependent. HVB Group has used two main scenarios to present the forecasts for the continuation of these trends: firstly, a mild recession scenario (baseline scenario) and secondly, the severe recession scenario (adverse scenario).

Baseline scenario
The baseline scenario reflects the weak growth for the coming quarters that HVB Group expects as tighter financing conditions dampen activities. Deflation is progressing according to plan with a downward trend in consumer prices. It is assumed that most countries will not need to put gas rationing in place. The countermeasures already taken by countries (high storage levels, LNG terminals and reductions in the use of gas) are considered compensatory to counteract low (or even a complete breakdown in) Russian gas supplies. The scenario continues to be marked by high energy prices and weak global trade. In addition, it is assumed that the ECB's interest rate policy will continue to be restrictive. The ECB's interest rates should amount to 400 basis points in the fourth quarter of 2023, remain stable until mid-2023 and then decrease.
This scenario assumes deteriorating growth prospects along with subdued global growth in 2023 and the low growth continuing in 2024. The slow-down largely reflects the impact of tighter monetary policy with a time lag due to exhausted household savings buffers and less support from fiscal policy. Consumer price inflation has fallen considerably from its peak, mainly due to energy prices but core inflation is also declining as a result of lower pressure on input prices. The most recent increase in oil prices is unlikely to prevent further deflation as overall demand is slackening. Key interest rates in most advanced economies have probably reached their peak but interest rate cuts will most likely have to wait until data-dependent central banks see clear evidence that core inflation is moving towards their targets on a sustainable basis.

Accounting and Valuation (Continued)

USA
In the USA, GDP growth is expected to be close to 2% in 2023, with a slight recession expected at the turn of the year and a stable annual growth rate for 2024. The recent strength seen in private consumption is unlikely to be sustained in an environment with much tighter lending conditions, a shrinking labour market and reduced household savings buffers. Inflation is likely to fall to around 2% by the end of next year. In addition, it is assumed that the key interest rates of the FED in the USA have reached their peak and a downward trend is expected from March 2024.

Eurozone
Economic growth in the eurozone will stagnate at best in the second half of 2023. The growth forecast for 2023 remains at 0.5% and remains limited to 0.6% in 2024. In view of declining demand, the pressure on corporate profit margins has begun and is highly likely to continue. This will probably challenge the resilience of the labour market. Inflation will continue its downward trend and reach the ECB's target of 2% by the end of 2024. In terms of monetary policy, the ECB's tightening cycle appears to have ended; the current discount rate (DFR) of 400 basis points remains stable until mid-2024.

Germany
Within the eurozone, the German economy underperformed due to its large manufacturing sector and its considerable exposure to China. After the technical recession at the beginning of the year (fourth quarter of 2022: minus 0.4%; first quarter of 2023: minus 0.1%), economic activity stagnated in the second quarter of 2023. This is also adversely affecting growth in 2024 and is primarily due to the fact that weaker prospects for global trade, less construction activity (in an environment with rising interest rates, higher costs and uncertainty about energy) and weak consumer spending are assumed. Despite the expected decline in inflation and significant wage increases, the purchasing power of households is likely to remain stable without this leading to a sharp increase in expenditure.

Adverse scenario
The adverse scenario depicts the scenario of a "severe recession". In this scenario, it is assumed that there will be a complete halt in Russian gas supplies due to the escalation of the conflict in Ukraine. This has a stronger impact on the LNG market and other sources of supply in the form of negative shocks. The pressure spreads to the oil market. The sharp increase in energy and food prices as well as other goods drives up inflation. A high level of uncertainty, interruptions in supply chains and the erosion of real income leads to a recession in the European economy.

Inflation expectations increase for short maturities but it is assumed that expectations for medium to long-term maturities will remain firmly anchored and even decline if the effect of economic overcapacity unfolds, affecting wages and pricing. The ECB responds to the shock and lowers interest rates significantly in 2024 (sharp decline compared with the baseline scenario). GDP is expected to contract in the eurozone in 2024. A cautious recovery is anticipated for 2025 if the shock as a result of commodity prices subsides and supply chains return to normal.

In 2024, inflation in the eurozone will be higher than in the baseline scenario but return to the baseline scenario in the coming years as weak demand and a widening of the production gap mitigate the effects of supply disruptions. Inflation expectations, which remain firmly anchored for longer maturities, help to avoid secondary effects. In this scenario, inflation remains above than the ECB's target of 2% in 2024 and declines to 2% from 2025. The ECB's monetary policy is expected to be more cautious in this scenario than in the baseline scenario as central banks overlook the short-term inflation peak and focus more on the damage caused to economic growth and its impact on price stability in the relevant political horizon.

Scenarios (baseline and downturn scenario)

		BASELINE SCENARIO				DOWNTURN SCENARIO			
FACTORS	DETAILS	2023	2024	2025	2026	2023	2024	2025	2026
Real GDP	Eurozone	0.5	0.6	1.3	1.4	0.5	-2.0	0.4	1.4
Annual changes (%)	Germany	-0.6	0.4	1.4	1.5	-0.6	-2.0	0.2	1.5
Inflation	Eurozone (HVPI)	5.6	2.6	2.0	2.0	5.6	3.5	2.0	2.0
Annual index changes (%)	Germany (VPI)	6.2	3.1	2.3	2.0	6.2	4.0	2.2	2.3
Unemployment rate (%)	Eurozone	6.6	6.9	6.8	6.8	6.6	8.3	8.3	7.8
	Germany	5.7	5.9	5.7	5.4	5.7	6.3	6.1	5.55
Financial indicators	EURIBOR 3m (end of period)	4	3.25	2.55	2.55	4	2	2	2
	Brent crude oil price ($/b)	86.0	89.0	80.0	80.0	86.0	108.8	100.1	102.3
Disposable income Annual changes (%)	Germany	4.55	3.15	2.8	2.8	4.55	2.9	2.5	2.5
National debt (% of GDP)	Germany	65	64	63	62	65	70	71	69
Real estate market (residential)	House price index (HPI) Eurozone	-2	-1	1.5	1.5	-2	-0.2	2.3	1.5
Real estate market (residential)	House price index (HPI) Germany	-8	-2	3	3	-8	-1.5	3.8	3
Nominal income	Germany	4.55	3.15	2.8	2.8	4.55	2.9	2.5	2.5

Sensitivity of expected credit losses

The sensitivity of the expected credit loss in line with IFRS 9 was estimated for various economic factors (see table above) in the fourth quarter of 2023 in order to determine the expected credit losses. To interpret sensitivities simply, we thus describe these as a sensitivity to the downturn scenario as a whole explained above (which means the factors are changed simultaneously to the respective overall extent and not only by 1%). For this purpose the impairments at Stages 1 and 2 were individually calculated based on the baseline and downturn scenario. Compared with the baseline scenario, the impact of the downturn scenario is 6.4% of the impairments at Stages 1 and 2.

Geopolitical environment

The constantly deteriorating macro environment is taken into account across the entire UniCredit Bank GmbH portfolio by means of regular macro scenario adjustments based on internal forecasts issued by UniCredit Research. Since the introduction of IFRS 9, this has been the primary instrument used for taking forward-looking information - “FLI” - into account. The macroeconomic factors are translated into changes in credit risk parameters using the Group’s macro dependency model (“satellite model”). The most recent macro adjustment was made in the fourth quarter of 2023 (see also below on this). In this connection the planned point-in-time calibrations and half-yearly adjustments to macro scenarios were carried out in 2023. The cumulative effect of these adjustments resulted in an increase in impairments for expected credit losses in the performing portfolio (“expected credit loss” – ECL) totalling €81 million. If the comparatively smaller impact of the half-year adjustment is taken into consideration (minus €24 million), the adjustments total €57 million (compared with €140 million in the 2022 financial year). In addition, there is a one-off effect from a recalibration of the satellite model, which resulted in a reduction of the ECL by €4 million in the fourth quarter.

Accounting and Valuation (Continued)

Due to the multifaceted effects on the global economy as a result of the increase in energy costs, inflation and interest rates, the risks have increased for companies and here particularly for energy-intensive companies and the real estate sector but also for private individuals. Uncertainty in assessing risks, some of which are interdependent, remains at the end of 2023. This prompted the Bank to review the overlays for geopolitical risks applied in 2022 and to take account of the change in the risk situation in the commercial real estate sector.

In UniCredit's terminology, "overlays" refer exclusively to adjustments relating to those temporary one-off effects aiming to ensure a fair extent of impairments with regard to industry-specific, exogenous situations. All remaining adjustments are generally referred to as "PMAs" (post model adjustments). These are usually associated with the anticipation of imminent changes to credit risk models or tactical corrections prior to full technical implementation in models and IT systems. In contrast to exogenously triggered overlays, the latter tend to be caused endogenously.

Overlays
Although the models used to determine impairments are generally able to depict a tense economic market environment, these were expanded to include what are known as overlays in order to adequately capture the effects of the numerous current industry-specific crises. The total overlay (geopolitical and CREF overlay) amounts to €188 million as at year-end 2023 (after €194 million as at 31 December 2022). The methodology of the overlays as well as all major adjustments are submitted to the local Financial and Credit Risk Committees for adoption. In keeping with the temporary nature of overlays, the Bank plans to transfer these to the models in the medium term if the overlay was not fully utilised or was not reversed as the original reason for setting up the overlay no longer applied.

Geopolitical overlays
Geopolitical overlays were applied in 2022 to take account of risks resulting from the Russia-Ukraine conflict that led to an increase in energy costs, inflation and interest rates for both companies and private individuals.

The geopolitical overlay is still required to ensure a fair extent of impairments at Level 1 and 2 for the specific segments at risk. This cannot be captured by the Group's macro dependency model ("satellite model") because industry-specific estimates cannot be derived from this. Although some effects of the Russia/Ukraine conflict have weakened somewhat compared with the previous year, for example energy availability, the current macroeconomic context is still subject to a high level of uncertainty – primarily due to geopolitical tensions in the Middle East. As a result of this, the situation on energy markets remains very uncertain. Furthermore, inflation is still high and domestic price pressure is as strong as before. A rapid and noticeable reduction in the level of interest rates by the ECB is not in sight either. In this environment, downturn risks remain high and the Bank has therefore applied a complementary geopolitical overlay of €64 million to sub-segments also for the fourth quarter 2023 in the expectation that it will be fully utilised. In the current review process for the overlays applied, customers were identified in 2023 that have developed from Level 2 to Level 3, meaning that a part of the overlay has been utilised.

The geopolitical overlay is based on the following components:

- Companies from energy-intensive sectors as these are more susceptible to the consequences of the Russia-Ukraine crisis, in particular in terms of energy supply and the related increase in prices
- Individual customers,
    - with a variable interest mortgage loan (without overdue instalments) as these are seen as being particularly susceptible to rising interest and inflation rates, or
    - that are overdue with one instalment payment on at least one loan, as these customers are seen as being particularly vulnerable in the light of the current situation.

Commercial real estate business overlay (CREF)
In addition, the persistently high level of interest rates is increasingly affecting the commercial real estate and construction industry, which is struggling with fewer orders, higher construction costs due to inflation, property prices falling in some cases and an increase in refinancing risks. In some areas, there is also a gap due to continued low rental income as long-term lease agreements cannot be adjusted in the short term to include the increase in costs. As this is a specific industry effect and no specific industry estimates can be derived from the Group's macro dependency model ("satellite model"), the Bank has decided to supplement the existing geopolitical overlay by a new commercial real estate finance – CREF– overlay. This covers the entire building construction and real estate sector in addition to CRE companies. There is no overlapping of the geopolitical and CREF overlay. The methodological approach in this regard functions in the same way as the geopolitical overlay. Based on the default rates of specific segments, an additional flow is expected in the non-performing portfolio. As a result, higher impairments are already being recognised in the performing portfolio. The additional impairments entered in this way amount to €124 million as at year-end.

Cross-border overlay
In 2022, impairments for companies directly affected by the conflict in Ukraine came to €16 million. These were reversed in 2023 for reasons of immateriality as some of the companies affected changed to a non-performing status, business relations were terminated with some of the companies and most of the remaining companies received a new rating.

Other materially relevant methodological adjustments to Level 1 and 2 impairments
The new IRB LGD model was implemented in the third quarter of 2022 for risk-weighted assets and expected loss purposes (one-year horizon). Subsequently, the technical preconditions were met for implementation for expected credit loss purposes. An LGD post model adjustment (PMA) was calculated with the aid of this simulation. As at year-end, this PMA totals €56 million. The replacement of the PMA in favour of implementation in the production environment is planned for the first half of 2024.

(Partly) bullet financing: In the course of 2022, the method for calculating the expected credit losses for credit products maturing at the end of the term was revised. Most of the principal repayments or the total principal repayment is made for these products shortly before the financing reaches maturity. There is no reduction of the risk over the course of time, which is reflected in the level of exposure. Instead, bullet financing is subject to a considerable refinancing risk on the part of the borrower. Therefore, this risk component is included when taking account of the classification at Stage 2 as well as in the respective PD lifetime definition. The revised method was finally technically implemented in the ECL models in 2023. At year-end 2022, post model adjustments of €178 million were applied which were fully reversed again at year-end 2023. On the one hand, the total amount declined due to the portfolio development and on the other hand, lower loan loss provisions were calculated through detailed implementation in the model.

Accounting and Valuation (Continued)

The following table provides an overview of the change in the main overlays and post model adjustments:

€ millions		2023	2022	CHANGE
OVERLAYS	Geopolitical	64	194	(130)
	Commercial Real Estate Finance (CREF)	124	0	124
	Cross border	0	16	(16)
PMA	Bullet/balloon	0	178	(178)
	Loss-given default (LGD)	56	0	56

Deterioration in creditworthiness (Stage 3)
The HVB Group units responsible for the restructuring or workout of non-performing exposures determine the future incoming payments for credit-impaired exposures which are significant in terms of amount based on the circumstances in each case. Consequently, specific allowances are recognised for these exposures while a collective allowance is recognised on a parameter basis for credit-impaired exposures that are insignificant in terms of amount in line with the method used in determining the expected credit losses.

If the creditworthiness of the borrower of a debt instrument has deteriorated, such credit-impaired assets are allocated to Stage 3. For these assets, interest income is recognised only in the amount of the interest on the basis of the net carrying amount. Like in the past, a deterioration in creditworthiness has occurred when a material liability of the borrower is past due by more than 90 days or HVB Group believes the borrower is unable to meet their payment obligations in full without steps to realise collateral being taken. This presupposes that there is objective evidence that the financial asset is impaired. Objective evidence of impairment refers to events that normally lead to an actual impairment. In the case of debt instruments, these are events that could result in the borrower not being able to settle their obligations in full or at the agreed date. Objective evidence is provided only by events that have already occurred, not by events expected in the future. The assessment of the borrower's creditworthiness using internal rating processes is relevant in this connection. This assessment is reviewed periodically and when negative events occur. If the borrower is 90 days in arrears, this is considered objective evidence of an impairment, similarly leading promptly to a review of the borrower's individual rating on account of the occurrence of a negative event involving the borrower. Based on internal procedures, the classification of the borrower is updated to "in default" or "not in default". As a result, the assessment of the borrower's creditworthiness is always assessed with regard to their ability to meet outstanding liabilities.

In Stage 3, the impairment is calculated as the difference between the carrying amount and the present value of the expected future cash flow. These figures are estimated by HVB Group and are generally discounted using the original effective interest rate. In doing so, different, realistic scenarios are estimated whereby the impairment loss is obtained from the expected value of the credit defaults weighted by the probability of occurrence for each scenario. The impairment loss calculated in this way likewise corresponds to the expected credit losses for the debt instrument but, deviating from Stage 1 and Stage 2, the probability of default is no longer taken into account as default has already occurred.

As the debt instrument is in default, it is put on a non-accrual basis, i.e. the contractual interest payments are no longer recognised in the income statement. Instead, the interest income is determined on the basis of the net carrying amount. For this purpose, the net carrying amount from the previous period is generally compounded at the original effective interest rate of the debt instrument over the reporting period. Furthermore, the amounts put on a non-accrual basis are recorded both in the gross carrying amount and in the impairment losses without affecting income. As, in doing so, the gross carrying amount and the impairment losses are increased by the same amount, the net carrying amount does not change.

As soon as the reasons for the default no longer apply, the assets are transferred back to Stage 1 or 2, respectively, depending on whether the credit default risk is still significantly higher or not in comparison to when the assets were initially recognised.

In the case of financial guarantees and irrevocable credit commitments made to a borrower in default, a possible impairment is determined in the same way; the impairment loss is recognised as a provision.

If a receivable is considered uncollectible, the amount concerned is written off, which leads to the derecognition of the receivable. The amount is derecognised if the receivable in question is due, any available collateral has been realised and further attempts to collect the receivable have failed. Acute country-specific transfer risks are taken into account in the process. For the general treatment of transfer risks (country risk), please refer to the presentation of credit risk in the Risk Report.

For financial assets that were already in default upon initial recognition (purchased or originated credit impaired assets – POCI), the interest income is likewise recognised only at the amount of interest based on the net carrying amount. Credit losses expected upon initial recognition are already taken into consideration in the carrying amount (fair value) when posting assets. The carrying amount (fair value) upon recognition represents the present value of the expected payments that are discounted at the credit-risk-adjusted market interest rate. As a result, no impairment is recorded for POCI assets upon initial recognition. In the course of subsequent measurement, these assets are measured on the basis of the loss anticipated over the (residual) term to maturity; however, in the case of higher expected inflows than assumed upon initial recognition, the assets can be written up to amounts in excess of the acquisition cost.

Modification of financial assets measured at amortised cost
If the contractual terms of financial assets are modified, it is necessary to review whether such modifications are significant or insignificant. Whereas significant modifications result in the derecognition of the existing asset and the posting of a new, significantly modified asset, in the case of insignificant modifications, only the agreed modifications to the contractual cash flows are discounted. The difference between the present value of the modified contractual payments determined in this way and the carrying amount (present value of the contractual payments before modification) are recognised in the income statement.

A significant modification to the contractual terms has occurred where compliance with cash flow conditions has changed or there is a further substantial adjustment to the conditions. In such cases, the existing loan is derecognised and the modified loan posted as a newly extended loan.

In addition, lending agreements can be modified to ease the burden on borrowers in poor financial situations and improve the probability of the loans being serviced (forbearance). Various strategies may be used to ease the burden on the borrower. Possible measures include deferrals and temporary moratoriums, longer periods allowed for repayment, reduced interest rates and rescheduling, and even partial debt waiver.

Where the Bank waives payments by the borrower (such as waived fees, reduction of contractual interest rates, etc.) due to a deterioration in creditworthiness, such a waiver represents objective evidence of the borrower defaulting. The derecognition of payments due or of future repayments of principal caused by an issued waiver is recognised in the income statement, provided an allowance had not already been set aside for this in the past.

Accounting and Valuation (Continued)

If the modification of the contractual agreement does not result in the derecognition of the receivable or part of the receivable on account of the waiver of payments due or of future repayments of principal but merely to an adjustment of future cash flows, for example through a prospective reduction in the interest rate as of the date of the modification, the gross carrying amount has to be adjusted accordingly. For this purpose, the newly agreed cash flows have to be discounted at the original effective interest rate and this present value deducted from the gross carrying amount (prior to the contractual modification). The difference determined in this way is recorded as a modification gain or loss through the income statement. As this primarily affects non-performing, impaired receivables, the modification gain or loss is reported under the consolidated income statement item "Net write-downs of loans and provisions for guarantees and commitments".

15 Investments in associates and joint ventures accounted for using the equity method

Investments in joint ventures and associates are accounted for using the equity method.

16 Property, plant and equipment

Property, plant and equipment are tangible assets held for use in the production or supply of goods or services, for leasing to third parties or for administrative purposes and are expected to be used for longer than one period. Property, plant and equipment includes land and buildings used by HVB Group itself, fixtures in buildings not owned by the Bank, plant and office equipment and right-of-use assets (leases).

Property, plant and equipment are measured at acquisition or production cost upon initial recognition. This includes:

- the purchase price including customs duty and non-refundable turnover tax after deducting rebates, bonuses and discounts
- all directly attributable costs that were incurred to transport the asset to the site and to put it into the required, operational condition as intended by Management
- costs of future waste disposal, recultivation and similar obligations

Acquisition or production cost incurred subsequently is capitalised in the carrying amount of the item of property, plant and equipment, provided additional economic benefits flow to the Bank. Expenditure on repairs or maintenance of the item of property, plant and equipment is recognised as expense in the year in which it is incurred.

After initial recognition, HVB Group applies the following accounting principles to its property, plant and equipment in line with IAS 16.29:

- Subsequent measurement of owner-occupied land and buildings is carried out by applying the revaluation model in accordance with IAS 16.31. According to that model, an item of property, plant or equipment recognised as an asset is accounted for at a revalued amount, which will generally be the fair value at the revaluation date less any subsequent accumulated scheduled depreciation and impairment losses. The carrying amounts of properties were divided into separate carrying amounts for land on the one hand and buildings on the other, which are measured separately as classes of property, plant and equipment.
- The remaining items of property, plant and equipment are measured on the basis of the cost model in line with IAS 16.30 upon subsequent measurement. According to this model, an item of property, plant and equipment recognised as an asset is generally accounted for at its acquisition or production cost less any accumulated scheduled depreciation and impairment losses (amortised acquisition or production cost).

Although HVB Group measures its owner-occupied land and buildings using the revaluation model, it was decided in line with IFRS 16.35 that this valuation model would not be applied to the right-of-use assets relating to these asset classes. The valuation of the right-of-use assets from leases recognised under property, plant and equipment is thus carried out on the basis of the cost model. A detailed presentation of this is given in the Note “Lease operations”.

A prerequisite for the application of the revaluation model is that the fair value of the owner-occupied land and buildings can be reliably determined. According to the definition in IAS 16.6, the fair value of property, plant and equipment is the price that would be received for the sale of an asset or paid for the transfer of a debt in an orderly transaction between market participants at the measurement date. The fair value is determined in accordance with the provisions of IFRS 13.

For the revaluation of owner-occupied land and buildings, valuation reports are prepared by independent external experts. Revaluations are made with sufficient regularity to ensure that the carrying amount of a revalued asset does not differ materially from its fair value.

The revalued amount (fair value) determined for the land or buildings at the revaluation date is the new carrying amount. The difference to the previous carrying amount of the asset is recognised as follows, taking account of previous periods:

– If the fair value is higher than the carrying amount due to an increase in value, the difference is generally to be reported in the consolidated statement of total comprehensive income under other comprehensive income (OCI) and accumulated in equity as a revaluation surplus without affecting profit or loss. However, if a revaluation loss was recognised as an expense in the consolidated income statement in previous periods, in exceptional cases a write-up must be recognised in the income statement up to the amortised acquisition or production cost in the event of a new increase in value. All increases in value beyond this are to be recognised through other comprehensive income without affecting profit or loss and thus increase the revaluation surplus in equity. Consequently, a revaluation gain in excess of amortised acquisition or production cost is never recognised in profit or loss.
– By contrast, if the fair value is lower than the carrying amount due to a decrease in value, the carrying amount must be written down to the lower fair value. If there is a revaluation surplus for the asset concerned as a result of revaluation gains in previous periods, it is reversed in the event of a new revaluation loss by recognising the decrease in value through other comprehensive income without affecting profit or loss. Any revaluation loss beyond this is recognised in profit or loss.

Revaluation effects recognised directly in equity are reported in the consolidated statement of comprehensive income under the item “Allocation to/withdrawal from the revaluation surplus for owner-occupied property (IAS 16)” as components of the income and expense items recognised through other comprehensive income that will not be reclassified to the consolidated income statement in future periods (no recycling). The revaluation surplus is recognised under the item “Revaluation surplus for owner-occupied property” as a component of other reserves in equity in the consolidated balance sheet and reported separately in the statement of changes in consolidated shareholders’ equity.

After revaluation, scheduled depreciation is taken on depreciable buildings on a straight-line basis over their expected useful lives upon subsequent measurement. The revalued amount constitutes the new basis of measurement for depreciation. Scheduled depreciation is not taken on land as it is a non-depreciable asset. For all other depreciable items of property, plant and equipment, the acquisition or production cost is subsequently reduced by scheduled straight-line depreciation in line with the expected useful life. The depreciable amount to be offset from the depreciable assets for each period is recognised in profit or loss as a basic rule.

Accounting and Valuation (Continued)

Fixtures in rented buildings are depreciated over the term of the rental contract, taking into account any extension options, if this is shorter than the normal useful life of the asset concerned. The right-of-use assets from leases reported under property, plant and equipment are generally subject to scheduled depreciation on a straight-line basis over the shorter of the expected useful life of the right-of-use asset or the underlying asset and the term of the lease agreement. A detailed description of the leases including the consequences of any agreements, e.g. on purchase options, is provided in the Note "Lease operations".

The following economic lives were taken as a basis for determining the depreciation on property, plant and equipment:

PROPERTY, PLANT AND EQUIPMENT	ECONOMIC LIFE
Buildings	25–60 years
Fixtures in buildings not owned	10–25 years
Plant and office equipment	3–25 years

The useful lives and depreciation methods of property, plant and equipment are reviewed once a year and adjusted as appropriate if the current expected useful lives differ from earlier estimates or if significant changes have occurred in the expected future economic use of the assets. The required changes in estimates are taken into account prospectively in accordance with IAS 8.

Unscheduled impairments are taken in accordance with IAS 36 on items of property, plant and equipment that have an impaired value. The revaluation does not replace the test to determine whether there is any indication of an impairment. An item of property, plant and equipment is considered impaired when its carrying amount exceeds its recoverable amount. The recoverable amount is the higher of the fair value less costs to sell and the value in use. The recoverable amount is generally determined on the basis of the value in use. The offset of an identified impairment of a revalued asset (land or building) is to be recognised as a revaluation decrease in compliance with the revaluation model pursuant to IAS 16 in line with the procedure described above. An impairment loss is thus recognised through other comprehensive income provided that this does not exceed the amount reported in the revaluation surplus for the same asset. However, the impairment loss of an asset which is not revalued (other property, plant and equipment) is immediately recognised in the consolidated income statement through profit or loss in each case.

If the reasons for unscheduled depreciation cease to apply, a write-up of property, plant and equipment is carried out. In doing so, the carrying amount increased by the impairment reversal may not exceed the (net) carrying amount which would have resulted if no impairment loss had been recognised for the asset in previous periods. Any impairment reversal of a revalued asset is to be treated as an increase in value as a result of revaluation compliant with IAS 16 in line with the above. This means the reversal of the unscheduled depreciation is to be credited to the revaluation surplus through other comprehensive income, unless the impairment was previously recognised in the income statement. By contrast, the impairment reversal of an asset that is not revalued is always recognised directly in the net income for the period.

Scheduled and unscheduled depreciation and write-downs as well as write-ups recognised in the consolidated income statement for property, plant and equipment are generally reported in the item "Amortisation, depreciation and impairment losses on intangible and tangible assets" within operating costs.

The difference between depreciation based on the carrying amount revalued at fair value and depreciation based on the amortised acquisition or production cost is transferred each year within equity from the revaluation surplus to retained earnings. Any revaluation surplus thus corresponds to the difference between the fair value and the amortised acquisition or production costs.

HVB Group adjusts the reported acquisition cost and the accumulated depreciation accrued up to the revaluation date in the statement of changes in non-current assets in proportion to the change in the carrying amount, so that the (net) carrying amount reflects the fair value (restatement approach). For example, if a revaluation increases the carrying amount by 10% of the fair value determined at the revaluation date, both the acquisition costs and the accumulated depreciation are increased by this factor (10%) in the statement of changes in non-current assets.

The carrying amount of an item of property, plant or equipment is derecognised on disposal or when no future economic benefits are expected from its use or sale. In the event of the sale of revalued land or a revalued building, the revaluation excess recognised in and allocable to the revaluation surplus is transferred in full to equity in retained earnings.

Excluded from the application of the revaluation model are owner-occupied properties that are in the process of being sold and are recognised as "Non-current assets or disposal groups held for sale". The measurement requirements of IFRS 5 are applied to these properties. However, the property must be revalued for the last time at the time of reclassification if the carrying amount differs from the fair value at that time.

17 Lease operations
IFRS 16 rules govern the accounting of lease operations. These rules apply in HVB Group to leases of property, plant and equipment and to investment properties. IFRS 16 does not apply to leases involving licence agreements.

In the case of newly concluded agreements, HVB Group assesses upon commencement of the agreement whether the agreement constitutes or contains a lease. This is the case when the agreement gives the right to control the use of an identified asset (of the underlying asset) for a specified period of time in return for a fee. HVB Group assesses whether the definition of a lease and the related guidelines in IFRS 16 are met primarily on the basis of the following criteria:
– the agreement contains an identified asset which is either explicitly specified in the agreement or implicitly specified by the fact that the asset is made available for use by HVB Group at a certain point in time;
– HVB Group is essentially entitled to derive all the economic benefits associated with the use of the identified asset throughout the period of use, taking into account the rights set out in the agreement;
– HVB Group is entitled to decide on the use of the identified asset throughout the period of use. This is particularly the case if HVB Group has the right to determine how and for what purpose the asset is used.

Furthermore, it is only necessary to reassess whether an agreement constitutes or contains a lease if the terms of the agreement change.

Accounting and Valuation (Continued)

HVB Group as lessee

In the case of agreements which constitute or contain a lease, HVB Group as the lessee generally recognises as an individual lease each lease component separately from the non-lease components of the agreement. In doing so, the contractually agreed consideration is allocated to the individual contractual components on the basis of the relative individual selling prices. HVB Group does not make use of the practical facilitation option, according to which a lessee can decide for individual classes of underlying assets not to separate the non-lease components and instead to account for lease and non-lease components as a single lease component.

Leases are accounted for by the lessee using a uniform accounting model (right-of-use approach). According to this model, HVB Group as the lessee generally recognises an asset for the right granted to use the underlying leased asset and a corresponding lease liability for the obligation to make the outstanding lease payments for each lease at the commencement date of the lease.

However, IFRS 16 provides lessees with the option of exempting short-term lease agreements with a term of up to 12 months and leases of low-value assets from recognition. HVB Group has elected to apply the simplified presentation option to all such leases and recognises the related lease payments on a straight-line basis over the term of the lease as an expense in the consolidated income statement.

The right-of-use assets recognised in the consolidated balance sheet are measured at cost upon addition. Such cost includes the present value of all future lease payments (the amount resulting from the initial measurement of the lease liability), plus payments made on or before the commencement date of the lease, initial direct costs and estimated costs of dismantling or restoring the underlying asset or the site where it is located (to the extent that such dismantling costs give rise to an obligation that is recognised and measured in accordance with IAS 37) less any lease incentives received.

The right-of-use assets reported under property, plant and equipment are subsequently measured using the cost model. In accordance with the depreciation rules of IAS 16, the right-of-use assets are generally amortised on a straight-line basis over the shorter of the expected useful life of the right-of-use asset or the underlying asset and the term of the lease. If, however, the lease payments to be taken into account also include the transfer of ownership of the leased asset at the end of the lease term, or if the cost of the right-of-use asset takes into account the fact that the lessee will exercise a purchase option, the write-downs of the right-of-use asset are made over the remaining economic life of the underlying asset. Existing term and call options are taken into account if their exercise is deemed sufficiently certain. In addition, the right-of-use asset is continually tested for impairment in accordance with IAS 36, written down if necessary and adjusted for certain remeasurements of the lease liability. While HVB Group establishes the value of its land and buildings reported under property, plant and equipment in accordance with the revaluation model of IAS 16, it was decided that this valuation model will not be applied to the right-of-use assets relating to these investment classes.

In contrast, the fair value model is applied to right-of-use assets that meet the definition of investment properties in IAS 40 and are reported under investment properties, as this model is also used for the subsequent measurement of investment properties in HVB Group. Consequently, HVB Group measures the right-of-use asset it has to an investment property at fair value and not at the underlying value of the asset.

The initial measurement of the lease liability is based on the present value of the lease payments not yet made on the commencement date. Lease payments comprise fixed payments (including de facto fixed payments), variable lease payments linked to an index or (interest) rate (initially measured at the index or (interest) rate applicable on the commencement date), the amounts expected to be paid under a residual value guarantee and the exercise price of a purchase option if the lessee is reasonably certain to exercise it. Penalties for premature termination of the lease are only included in the lease payments if the lessee is reasonably certain to terminate the lease prematurely. All lease incentives (e.g. rent-free periods) expected to be received are deducted from this.

Lease payments are discounted at the interest rate underlying the lease (interest rate implicit in the lease) if it can be readily determined. Otherwise they are discounted at the lessee's incremental borrowing rate. The latter is the interest rate that a lessee would have to pay to raise funds in a similar economic environment in order to obtain an asset of similar value at comparable conditions. In order to determine the incremental borrowing rate, HVB Group uses a fixed interest rate curve based on a swap rate (base rate) and the Bank's funding premium, which reflects the nature of the lease obligations. According to this method, the lease payments not yet made are discounted to the present value at current interest rates taking into account the internally determined funding premiums. The funding premiums correspond to the parameters that the Bank uses when setting the prices for its own borrowings. As a rule, we apply the incremental borrowing rate for discounting because the interest rate implicit in the lease is generally not available to us.

Any variable lease payments that are not linked to an index or (interest) rate and are therefore not taken into account in the measurement of the lease liability are recognised by lessees as an expense in the period in which they arise.

In the course of the subsequent measurement, the lease liability is updated using the effective interest method from accounting mathematics. The carrying amount of the lease liability is compounded and reduced by the amount of the lease payments made with no effect on income.

The lease liability is remeasured if future lease payments change due to a change in the index or (interest) rate, if the estimate of the expected payments under a residual value guarantee is adjusted, if the estimate of the exercise of a purchase, extension or termination option changes or if the de facto fixed lease payment changes. The right-of-use asset is to be adjusted accordingly by the amount resulting from the revaluation of the lease liability. If the reduction in the lease liability exceeds the carrying amount of the right-of-use asset, the resulting residual amount (difference between amount of the reduction in the lease liability and the carrying amount of the right-of-use asset) is recognised in profit or loss.

Accounting and Valuation (Continued)

Disclosure in the consolidated financial statements of HVB Group is as follows:
– In the consolidated balance sheet, right-of-use assets that do not meet the definition of investment property are reported under property, plant and equipment. In contrast, right-of-use assets that meet this definition are presented in the balance sheet as investment properties. Lease liabilities are presented in the balance-sheet item “Deposits from customers” or “Deposits from banks” depending on the contractual partner.
– In the consolidated income statement, scheduled and unscheduled amortisation and write-downs, as well as write-ups on the right-of-use assets contained in property, plant and equipment are generally recognised in the item “Amortisation, depreciation and impairment losses on intangible and tangible assets” within operating costs. A gain or loss arising from a change in the fair value of rights to use investment properties is recognised directly in the income statement item “Net other expenses/income”. The accrued interest on the lease liabilities contained in the deposits from customers and deposits from banks is recognised under interest expense. Expenses in connection with short-term lease agreements, leases based on a low-value assets and variable lease payments not taken into account in the measurement of the lease liabilities are shown in the item “Other administrative expenses”.

HVB Group acts as seller/lessee in sale-and-leaseback transactions in which it sells assets (properties) to another company (buyer/lessor) which it then leases back from that company. The provisions of IFRS 15 are applied in determining whether the transfer of the assets is to be accounted for as a sale. If the transfer of the asset as a result of the transfer of control constitutes a sale, the seller/lessee must recognise the right-of-use asset relating to the leaseback at that portion of the former carrying amount relating to the right-of-use asset retained by it. Any gain or loss on the transaction is thus recognised only to the extent to which it relates to the rights transferred to the buyer/lessor. The pro rata unrealised gain on the sale resulting from the adjustment of the initial measurement of the right-of-use asset is subsequently recognised as a reduction of the ongoing write-downs of the right-of-use asset over the term of the leaseback.

If the transaction is not carried out at fair value or at standard market conditions but, for example, a purchase price premium is compensated by higher lease payments, the differences are considered to be financing transactions. The acquisition cost of the right-of-use asset is to be reduced by these financing components accordingly in order to recognise the right-of-use asset and the income from the sale of the asset. However, if the transfer of the assets does not constitute a sale because control is not transferred, the transaction is presented in the balance sheet of the seller/lessee as a financing transaction. The seller/lessee continues to recognise the transferred assets and recognises the financial liability in the amount of the income from the transfer in accordance with IFRS 9.

HVB Group as lessor
In the case of agreements that constitute or contain a lease, HVB Group as a lessor reports as a lease each lease component separately from the non-lease components of the agreement and applies the respective regulations of IFRS 15 to the distribution of the contractually agreed compensation between the individual components.

Leases in which HVB Group appears as the lessor are classified as either finance or operating leases on commencement of the lease (dual lessor accounting model). If the terms of the lease essentially transfer all the risks and rewards incidental to ownership to the lessee, the lease is classified as a finance lease. All other leases are classified as operating leases. The classification is only reassessed in the event of a change in the lease agreement.

In the case of a sublease, HVB Group acts as an intermediate lessor and accounts for the principal lease and the sublease as two separate agreements. The classification of the sublease as a finance or operating lease is based on the right-of-use asset and not on the asset from the principal lease underlying the lease. If the principal lease is a short-term lease to which HVB Group applies the above described exemption, the sublease is classified as an operating lease.

– Operating leases
  In the case of operating leases, the lessor, as the beneficial owner, recognises the underlying asset in its consolidated balance sheet. The leased assets are carried under property, plant and equipment or investment properties and measured in accordance with the relevant methods described. Lease income from operating leases is recognised on a straight-line basis over the term of the respective lease and shown under other income in the "Net other expenses/income" item. Initial direct costs incurred in negotiating and agreeing a lease are added to the carrying amount of the leased asset and allocated on a straight-line basis over the term of the lease.
– Finance leases
  If the lessor transfers the underlying asset to the lessee for use under a finance lease, the lessor must derecognise it from its consolidated balance sheet on the commencement date and recognise a finance lease receivable from the lessee. The initial measurement of the finance lease receivable included in the item "Loans and receivables with customers (at cost)" or "Loans and receivables with banks (at cost)" is carried at the net investment in the lease using the lessor's interest rate underlying the lease. Initial direct costs are included in the initial measurement of the net investment in the lease and reduce the income recognised over the lease term. The lease payments to be included in the amount receivable under the lease generally correspond to the payments that must also be taken into account upon the initial measurement of a lessee's lease liability. Subsequently, the lease payments received by the lessee are divided into an interest portion recognised in the income statement and a redemption portion. Interest income is recognised over the term of the lease using the effective interest method; the redemption portion reduces the outstanding receivable as a repayment of the principal. The derecognition and impairment provisions of IFRS 9 are to be applied to the amounts receivable under the lease. If the estimated unguaranteed residual values are used in the calculation of the gross investment in the lease, the lessor must review these values at regular intervals.

Any variable lease payments are recognised as income by the lessor in the period in which they arise.

For more information on leases, please refer to the Note "Information regarding lease operations".

Accounting and Valuation (Continued)

18 Investment properties

Investment properties are real estate (land and buildings) that HVB Group holds to earn rental income and/or for capital appreciation over the long term.

Investment properties are recognised at acquisition or production cost including transaction costs at the time of addition. These are then measured using the fair value model in accordance with IAS 40.33. This also applies to the right-of-use assets under leases that comply with the definition of investment property in IAS 40 and are classified as investment property. There is no scheduled depreciation over the economic life. Gains and losses resulting from changes in the fair value are recognised through profit or loss in the consolidated income statement under the item "Net other expenses/income" in the period in which they arise. Current expenses and rental income for land and buildings held as an investment is also reported in this item.

The fair value of investment properties is determined as follows: the properties to be measured are always unique which means that there are no prices that are observable for these properties. Consequently, the fair value is to be determined on the basis of recognised valuation methods (Level 3). Only in exceptional cases can binding offers or non-binding reliable offers for a property be made in the course of a selling process (such as for investment properties classified as non-current assets or disposal groups held for sale), so that the fair value can be determined on the basis of prices observable on the market (Level 2). The valuation is carried out at regular intervals.

The appraisals prepared to calculate fair values are based on recognised appraisal methods used by independent external assessors, primarily taking the form of comparative-value, asset-value and income approaches. In the income approach, current market rents, management and maintenance costs and property yields are applied in the case of developed land. Where necessary, property-specific considerations are also taken into account when determining the value. Among other things, these property-specific factors include vacancy rates, deviations between current contractual rents and current market rents, the condition of the buildings' technical systems and similar factors. In the case of undeveloped land, figures for sales of nearby land that have been completed are normally taken as a basis; where these are not available, the standard land value is used as a benchmark, with adjustments made for the individual location, size and layout of the plot of land, among other factors.

An investment property is derecognised upon disposal or when it is permanently no longer to be used and future economic benefits from the disposal are no longer expected. The gain or loss on disposal is determined as the difference between the net proceeds on disposal and the carrying amount of the asset and is recognised through profit or loss in the consolidated income statement in the period of disposal.

In some cases, it may prove difficult to classify a property as an investment property rather than property, plant and equipment. Classification is especially difficult if part of the property is held by the Group as an investment while another part is used for the Bank's own purposes as an administration building, and the parts of the property cannot be sold separately or leased out under a finance lease so that the two parts are not accounted for separately. In such cases, HVB Group classifies a mixed usage property in full as an investment property if more than 90% of the property is leased to an external third party and the part of the property used by the Bank is of subordinate importance. The whole property is classified as property, plant and equipment if the part of the property leased externally totals 90% or less.

19 Intangible assets

Intangible assets mainly consist of internally created and separately purchased software. As a basic rule, software is no longer created internally at HVB. Software is supplied to HVB by the UniCredit-wide service provider UniCredit Services S.p.A.

Intangible assets are only recognised if it is probable that a future economic benefit will flow to the Bank and the cost of the assets can be reliably measured.

Internally created and separately purchased intangible assets are generally recognised at their acquisition or production cost less any accumulated scheduled amortisation and impairment losses (cost model according to IAS 38.74).

Software has a limited useful life and is measured over an expected useful life of three to five years and other intangible assets with a determinable useful life are amortised on a scheduled straight-line basis over an expected useful life of up to ten years.

Scheduled and unscheduled amortisation, impairments and write-ups on intangible assets are recognised through profit or loss in the consolidated income statement under the item “Amortisation, depreciation and impairment losses on intangible and tangible assets” within operating costs.

The carrying amount of an intangible asset is derecognised on disposal or when no future economic benefits are expected from its use or sale.

20 Non-current assets or disposal groups held for sale

Under IFRS 5, non-current assets or disposal groups held for sale which are expected to be sold within one year are to be recognised as non-current assets or disposal groups held for sale. Upon reclassification, these are generally carried at the lower of the carrying amount or fair value less costs to sell. Upon subsequent measurement following reclassification, the non-current assets or disposal groups held for sale are, if necessary, written down to a lower fair value less costs to sell if this has fallen at subsequent reporting dates. Should the fair value increase, the total may be written up to an amount that is no more than the cumulative impairment loss.

Financial instruments as defined by IFRS°9 and non-current assets measured according to the fair value model in IAS 40, for which the measurement requirements of the respective IFRS apply, are among the items exempt from the IFRS 5 measurement requirements.

Accounting and Valuation (Continued)

21 Liabilities
Deposits from banks and customers, and debt securities in issue that are not hedged items of an effective micro fair value hedge are carried as liabilities at amortised cost. Upon initial recognition, they are disclosed at their fair value including any transaction costs. Interest accruing on the liabilities is calculated using the effective interest method.

In previous years, HVB entered into targeted longer-term refinancing operations (TLTRO III) with the ECB. These are recognised in the balance sheet at cost using the effective interest method. The interest conditions were dependent on the fulfilment of certain lending criteria relating to two specific reporting periods defined by the ECB. The lending criteria were fulfilled for both periods as expected upon addition (the first period ended on 31 March 2021 and the second period on 31 December 2021). On the assumption that the lending criteria were fulfilled, the resulting interest payments and premiums were taken into account accordingly as expected or estimated future cash inflows or outflows in order to determine the effective interest rate.

At its meeting on 27 October 2022, the ECB's Governing Council decided to adjust the interest rate for TLTRO III operations: the previous interest rate regulation ended on 23 November 2022. From this date onwards, only the average rate for main refinancing operations and the average rate for the deposit facility were applicable to TLTRO III operations for the final interest period (from 23 November 2022 until repayment of the TLTRO III operations). This means that it is no longer necessary to calculate the average rate over the entire term of the respective TLTRO III operation as previously. In parallel, a repayment option was introduced on 23 November 2022 in addition to the old conditions. HVB made use of this option and repaid a partial amount. The change in conditions represented a material amendment of the contractual conditions which meant that the TLTRO III operations recognised to date had to be derecognised. The TLTRO III operations recognised to date in the balance sheet were accrued until 23 November 2022 or until derecognition based on the effective interest rate method described above. In return, a refinancing operation with the ECB was entered on 23 November 2022 at standardised, variable interest at the amount of the contractual repayment claim of the previous TLTRO III operations. This related to the partial amount that HVB did not repay to the ECB on that date. The amendment of the conditions also reflected the change in the ECB's objective for the TLTRO III programme: these conditions no longer serve to achieve price stability in the Eurosystem and to stimulate economic development by expanding the lending volume but are now purely refinancing operations between the ECB and banks.

22 Financial liabilities held for trading
This item includes the negative fair values of traded derivatives and all other derivatives that are not classified as hedging derivatives (which are recognised separately). Also included here are warrants, certificates and bonds issued by our trading department, liabilities under repurchase agreements as well as delivery obligations arising from short sales of securities held for trading purposes.

Financial liabilities held for trading are carried at fair value. Gains and losses from the valuation and realisation of financial liabilities held for trading reported in the consolidated income statement under net trading income. We act as market maker for the structured products we issue.

With interest rate swaps, the two offsetting interest payment flows are aggregated for each swap contract and reported in net terms as interest income or interest expense. In the case of pure derivatives trading portfolios, we report the netted interest payments under net trading income.

23 Financial liabilities at FVTPL

HVB Group designated certain liabilities as financial instruments to be measured at fair value through profit and loss (fair value option) upon initial recognition. In this context, financial instruments issued are designated on the basis of fair value-based management of the portfolios concerned.

Financial liabilities at fair value through profit or loss are disclosed upon initial recognition at their fair value without any transaction costs. Upon subsequent measurement, changes in fair value with the exception of the own credit spread are recognised through profit or loss in the item “Net gains/losses on financial assets and liabilities at fair value”. If part of the change in fair value is attributable to changes in own credit spread, this partial amount is corrected again in the consolidated income statement and then recognised through other comprehensive income. This procedure does not lead to any accounting anomaly in the consolidated income statement.

In equity, the reserve for the own credit spread is shown under “Other reserves”. If there are any changes in the financial liabilities at FVTPL in the course of measurement at fair value on account of the own credit spread, these changes are recognised through other comprehensive income. If this reserve still contains amounts on the date of disposal of the liability, the relevant amounts are not recognised in the consolidated income statement and are generally reclassified to retained earnings.

24 Hedge adjustment of hedged items in the portfolio fair value hedge

Changes in the hedged amount of hedged items are carried on an aggregated basis in this hedge adjustment of portfolio fair value hedges to be shown separately (see the Note “Hedge adjustment of hedged items in the portfolio fair value hedge”).

25 Other liabilities

Compliant with IAS 37, accruals and other items are shown under other liabilities. These reflect future expenditure of uncertain timing or amount, but the uncertainty is less than for provisions. Accruals are liabilities for goods and services received that have been neither paid for nor invoiced by the supplier, nor formally agreed. This also includes current liabilities to employees, such as flexi-time credits and holiday entitlements. HVB Group carries accruals at the amount likely to be used.

Accounting and Valuation (Continued)

26 Provisions

Present legal or constructive obligations as a result of past events involving a probable outflow of resources, and whose amount can be reliably estimated, are recognised as provisions.

When determining provisions for uncertain liabilities and anticipated losses on onerous transactions, the best estimate compliant with IAS 37.36 ff is taken as a basis. Provisions are discounted where the interest effect has a significant impact.

Provisions are generally set aside at the expense of the respective expense items, only provisions for legal risks, provisions for onerous contracts and other similar items falling under the scope of IAS 37 are set aside or revised via the item “Transfers to provisions”.

In accordance with IAS 19, provisions for pensions and similar obligations arising from defined benefit plans are recorded on the basis of external actuarial reports by applying the projected unit credit method, with each pension plan being valued separately. This accrued benefit method pro-rated on service takes into account dynamic considerations when determining the expected pension benefits upon retirement and distributes these over the beneficiaries’ entire period of employment. This means that the measurement of the defined benefit obligation is based on an actuarially calculated present value of the future benefit entitlement for services already rendered (vested benefit entitlements), taking into account the expected compensation increases including career trends and forecast pension progression. The actuarial assumptions to be defined when measuring the benefit obligation vary in line with the economic and other underlying conditions in the country in which the plans exist.

The underlying valuation assumptions may differ from the actual developments as a result of changing market, economic and social conditions. The actuarial gains or losses resulting from the change to the valuation parameters may have a significant impact on the amount of the obligations for pensions and similar post-employment benefits.

The discount rate used to discount the defined benefit obligations (actuarial interest rate) is determined by reference to yields recorded on the market at the reporting date for high quality, fixed-rate corporate bonds and with maturities and currencies that match the obligations to be measured. A basket of AA-rated corporate bonds denominated in euros serves as the data basis for determining the discount rate for the obligations. These individual bond data are translated into a yield curve, which forms the basis for determining the actuarial interest rate, using a numerical adjustment calculation.

Funded pension obligations differ from unfunded pension obligations in that plan assets are allocated to cover the entitlements of the beneficiaries. The beneficiaries include active employees, former employees with vested benefit entitlements, and pensioners and their surviving dependants. Both HVB and a number of subsidiaries have set up plan assets in external, restricted-access pension organisations to fund their pension obligations.

If the beneficiaries' benefit entitlements or the Group's benefit obligations are not funded by assets, HVB Group recognises a pension provision in the amount of the present value of the defined benefit obligation (DBO) in its consolidated balance sheet.

However, if these are funded pension obligations, the present value of the defined benefit obligation is set against the fair value of the plan assets to determine the net defined benefit liability or net defined benefit asset from the defined benefit plans. The net amount is recognised in the consolidated balance sheet as a pension provision in the event of an excess of liabilities over assets or under other assets in the event of an excess of assets over liabilities adjusted for any effects of the asset ceiling. In the event of excess allocations to the plan, the amount of the net defined benefit asset recognised in the balance sheet is limited to the present value of the economic benefits associated with the surplus plan assets.

In the case of defined benefit obligations, actuarial gains and losses are recognised immediately and in full through other comprehensive income (OCI) in the period in which they accrue. Consequently, the pension provision or other asset recognised in the consolidated balance sheet corresponds to the actual deficit or surplus for a given commitment.

Under the net interest approach, the net interest to be recognised in profit or loss for the period is calculated by multiplying the net defined benefit liability (asset) under defined benefit plans by the discount rate used to measure the defined benefit obligation. Since the net defined benefit liability (asset) is reduced by any plan assets, this calculation method implicitly assumes a return on the plan assets in the amount of the discount rate.

If the present value of a defined benefit obligation changes as a result of a plan amendment or plan curtailment, the Group recognises the ensuing effects in full as past service cost in the profit or loss for the period. The amount is normally recognised at the date when the plan amendment or plan curtailment occurs. Gains and losses resulting from a plan settlement are also recognised directly in profit or loss when the settlement occurs.

The net pension expense of defined benefit obligations consists of a service cost component, a net interest component and a remeasurement component. This is recognised in the consolidated income statement and consolidated statement of total comprehensive income as follows:

The service cost component consists of the current and past service cost including gains and losses on plan settlements. The net interest component comprises the interest expense from the compounding of the defined benefit obligation, interest income on plan assets and, in the event of excess allocations to the plan, interest on any effects arising from the adjustment of the asset surplus to reflect the asset ceiling. The service cost and net interest components are recognised through profit or loss in the consolidated income statement for the period. HVB Group also recognises the net interest component under expenses for pensions and similar employee benefits in payroll costs alongside the service cost component.

The remeasurement component comprises the actuarial gains and losses from the measurement of the defined benefit obligation, the difference between the typical return on plan assets assumed at the beginning of the period in the amount of the discount rate and the actual return generated from plan assets and, in the event of excess allocations to the plan, any adjustment of the asset surplus to reflect the asset ceiling, excluding amounts already recognised in net interest. This component is recognised immediately in shareholders' equity without affecting profit or loss. The remeasurements recognised in other comprehensive income within the consolidated statement of total comprehensive income may not be reclassified in later periods in profit or loss (no recycling).

Accounting and Valuation (Continued)

The disclosure requirements for defined benefit plans contain a principles-based disclosure concept requiring companies to make company-specific judgements about the level of detail required or any emphasis to be placed on disclosures relating to defined benefit plans. The reporting is intended to meet the information needs of the users of the financial statements and give them a wide-ranging understanding of the risk structure and risk management of the pension plans (pension governance).

In contrast to defined benefit plans, no provisions for pensions and similar obligations are recognised for defined contribution plans. The amounts paid are recognised in the period of the payment taken to the income statement under payroll costs.

The provisions for pensions and similar obligations are described in detail in the Note “Provisions”.

Provisions for partial retirement and similar benefits recognised under other provisions are measured on the basis of external actuarial reports in accordance with IAS 19.

The top-up amounts promised under partial-retirement agreements are accounted for as other long-term employee benefits and the associated expenses accrued over their vesting period. HVB Group applies the first-in first-out (FiFo) method for the straight-line accrual of top-up benefits. The benefits are discounted to determine their present value. Remeasurements are recognised in profit or loss in the period in which they arise.

Other long-term employee benefits also include the deferred employee compensation under the Group’s bonus programmes, unless these are expected to be settled in full within twelve months after the end of the reporting period. The Group has a net liability in the amount of the future benefits to which the employees are entitled in exchange for the work performed in the current and earlier periods. HVB Group recognises a bonus provision in the amount of the present value of these benefits in its consolidated balance sheet, with the promised bonus amounts being allocated on a pro rata basis over the respective vesting period. Remeasurements of the net liability are recognised directly in profit or loss for the period.

The employee compensation schemes are described in detail in the Note “Operating costs”.

27 Foreign currency translation

The consolidated financial statements are prepared in euros, which is the reporting currency of the corporate group. Amounts in foreign currency are translated in accordance with the principles set forth in IAS 21. This standard calls for monetary items not denominated in the respective functional currency (generally the local currency in each case) and cash transactions not completed at the valuation date to be translated into euros at the reporting date using current market rates. Non-monetary items carried at fair value are similarly translated into euros using current market prices at the valuation date. Non-monetary items carried at cost are translated using the historic rate applicable at the time of acquisition.

Income and expense items arising from foreign currency translation at the individual Group companies are stated under net trading income in the consolidated income statement.

Where they are not stated in euros, the assets and liabilities reported by our subsidiaries are translated using current market rates at the reporting date in the consolidated financial statements. Average rates are used to translate the income and expenses of these subsidiaries.

Exchange rate differences resulting from the translation of financial statements of international business units are recognised in shareholders' equity without affecting profit or loss and are only taken to the income statement if the operation is sold in part or in full.

28 Income tax for the period

Income tax for the period is accounted for in accordance with the principles set out in IAS 12. Current taxes are determined taking into account local laws in the respective tax jurisdictions concerned. Apart from a few exceptions allowed for in the standard, deferred tax assets and liabilities are recognised for all temporary differences between the amounts recognised in accordance with IFRS and the amounts recognised for tax-reporting purposes (balance sheet approach). Deferred tax assets arising from unused losses carried forward for tax-reporting purposes are shown where permitted by IAS 12.

Since the concept is based on the presentation of future tax assets and liabilities (liability method), they are calculated using the relevant local tax rates that are expected to apply when the differences are reversed. Deferred tax assets and liabilities are netted provided the offsetting requirements defined in IAS 12 are met.

Segment Reporting

29 Changes in segment reporting

In the course of the first half of 2023, HVB Group made the following adjustment to the segmented income statement: The imputed sales margin for derivatives and FX spot transactions is reclassified from net trading income to net fees and commissions. This means that only income from the bid/ask spreads in trading activities is now recognised in net trading income while the mark-up on this price to compensate for the sales performance is allocated to net fees and commissions. This adjustment was also made for the disclosure of the previous-year figures to ensure comparability between periods. No other methodical adjustments were made and the division of HVB Group's operating segments remained unchanged. In segment reporting, the activities of HVB Group continue to be divided into the following operating segments:

- Retail
- Corporates
- Other

Disclosures in segment reporting are based on HVB's internal management. Therefore, income and expenses that are not solely based on external business activities but represent internal allocations and the like may be recognised here for internal management purposes. Where such internal income/expenses between the respective segments are recognised in identical items of the segmented income statement, these allocations are netted across all the segments. Any remaining effects from internal allocations are eliminated during consolidation so that only external income/expenses remain as a result in the total segmented income/expenses across all the segments, including consolidation.

Differences between the segmented income statement and the income statement are addressed in the reconciliation. The change in disclosure in 2023 relates to the circumstances described above: As the sales margin was only reclassified to net fees and commissions in the segmented income statement for internal management purposes, although net trading income is disclosed unchanged in the income statement, this has resulted in a reconciliation difference of €210 million for 2023 (2022: €237 million).

Due to rounding, minor deviations can occur when calculating totals and percentages.

30 Method of segment reporting by operating segment

In segment reporting, the activities of HVB Group are divided into the following operating segments:

– Retail
– Corporates
– Other

Segment reporting is based on the internal organisational and management structure together with internal financial reporting which reflect the perspective of the UniCredit corporate group and thus do not take factors into account that are not relevant for the UniCredit corporate group. In accordance with IFRS 8 “Operating Segments”, segment reporting thus follows the Management Approach, which requires segment information to be presented externally in the same way as it is reported on a regular basis to the Executive Board, as the responsible management body, and is used for the allocation of resources (such as risk-weighted assets compliant with CRR II) to the operating segments and for assessing profitability. In this context, the profit or loss after tax serves as the relevant result. Segment data are determined in accordance with International Financial Reporting Standards (IFRS). Due to rounding, minor deviations can occur when calculating totals and percentages.

In segment reporting, the operating segments operate as autonomous companies with their own equity resources and responsibility for profits and losses. The operating segments are divided according to their responsibility for serving customers. For a description of the customer groups assigned to the individual operating segments and the main components of the segments, please refer to the Note “Components of segment reporting by operating segment”.

The income statement items “Net fees and commissions”, “Net trading income” and “Net other expenses/income” shown in the operating segments are based almost exclusively on transactions involving external customers. Net interest is assigned to the operating segments in accordance with the market interest calculation method on the basis of the external interest income and interest expense. For this reason, a separate presentation broken down by external/internal revenues (operating income) has not been included.

The equity capital allocation used to calculate the return on investment for companies assigned to several operating segments is based on a uniform core capital allocation for each operating segment. Pursuant to CRR II, this involves allocating 13.00% (previous year: 13.00%) of core capital from risk-weighted assets to the operating segments. The average tied core capital calculated in this way is used to compute the return on investment, which is disclosed under net interest. The percentage used for the return on the equity capital allocated to the companies of HVB Group equals the base rate according to the book of own funds. In addition, a premium for credit risk is charged in the amount of the average spread curve for the medium- and long-term lending business of HVB Group. This rate is set for one year in advance as part of each budgeting process. Equity capital is not standardised for the other companies included in the consolidated financial statements.

Operating costs, which include payroll costs, other administrative expenses as well as amortisation, depreciation and impairment losses on intangible and tangible assets, are allocated to the operating segments according to causation. The Operations, Digital & Information and Corporate Center divisions are treated as external service providers, charging the remaining operating segments and business units for their services at a price which covers their costs. The method of calculating the costs of general banking services involves employing a weighted allocation key (costs, income, FTEs, base amount) for each operating segment to determine the assigned costs that cannot be allocated directly. The majority of the depreciation and impairment losses taken on property, plant and equipment are posted for the real estate companies of HVB Group included in the Other business area.

Segment Reporting (Continued)

The profit of €2 million (previous year: €3 million) from investments in associates relates to Comtrade Group B.V., Rotterdam, a company accounted for using the equity method. The profit is disclosed under the item "Dividends and other income from equity investments" in the income statement. In the reporting year, a write-up of €4 million (previous year: €2 million) was made on the carrying amount of the company accounted for using the equity method, which is reported under net income from investments. The carrying amount of the company accounted for using the equity method totals €17 million (previous year: €13 million). In the second half of 2023, HVB decided to end the sales negotiations started in January 2023 for its investment in Comtrade Group B.V. accounted for using the equity method and to keep its investment. In line with IAS 28.21 and IFRS 5.28 requirements for the sales process of investments in associates, reclassification was carried out retrospectively and the investment was accounted for retrospectively for 2023 using the equity method. The impact on the income statement from reclassification was recognised in the reporting year under the item "Dividends and other income from equity investments".

31 Components of segment reporting by operating segment

Retail operating segment

The Retail operating segment is subdivided into the Retail and Private business areas. The Retail business area serves retail customers as well as small business customers requiring simple, standardised products and advice in all areas of demand. The Private business area bundles wealth management and private banking customers.

The retail customer business provides universal banking services across all sales channels (branch, remote and digital) for discerning customers. The high standard of quality of the extensive and needs-based advisory services is supported by HVB's financial concept. This comprehensive advisory approach is supplemented by the smart banking service model for customers requiring standardised products and services. In the wealth management & private banking relationship model, very high net worth clients are served by advisors and a network of highly qualified specialists based on a 360-degree advisory approach with the aim of achieving a sustainable increase in the prosperity of our customers and thus maintaining long-term, trusting customer relationships.

In the area of small business customers, we offer our customers a full range of services in corporate and private financial and asset issues with customers benefiting even more than before from the modernisation and expansion of our digital offering already embarked upon. In addition, our offerings for special target groups, such as healthcare professionals, are being developed on an ongoing basis.

In line with the universal bank model, the range of products and services of the Retail operating segment enables us to provide comprehensive customer support. In the Retail business area, this extends from payment services, investment products, mortgage loans, consumer loans, savings-and-loan and insurance products and banking services for retail customers through to short- and long-term business loans for small business customers. In the Private business area, customised portfolio concepts, financing solutions as well as the brokerage of corporate investments are also offered to high net worth private customers with an entrepreneurial background.

Corporates operating segment
The Corporates operating segment bundles the corporate banking business. In this context, we position ourselves as a strategic partner with complete and customised solutions for corporate customers. This segment covers the SME and Large Corporates business areas and serves the entire spectrum of small and medium-sized through to large companies.

In the SME business area, we maintain regional presence in the market. In doing so, we use differentiated relationship models to target our corporate customers depending on the needs of each customer. This enables resources to be distributed in line with heterogeneous market conditions and thus the earnings potential to be effectively exploited in each region.

Regional relationship management covers tailored financing offers, for example through the use of subsidies as well as solutions for the management of financial risks, in addition to the traditional banking services of payments and lending. Furthermore, the services provided for special target groups, such as insolvency administrators or public sector workers, are being continuously refined and special advisory services, like in the Capital Markets and M&A business area, are offered for relevant customer groups.

The Large Corporates business area covers large corporate customers requiring highly complex services who are managed in the Industry Coverage sub-area. The quality of service in this sub-area lies in exploiting our strengths – our wide range of products, in-depth sector know-how and creation of customised customer solutions – in our customer relationships whilst assuming a leading core bank role. Our range of products and services also includes traditional banking products and the entire product portfolio of Client Solutions. It is rounded off by our own ESG products as well as external insurance products.

Furthermore, the customer relationship management of Financial Institutions (FI), the proprietary Private Investor Products business (PIP) as well as activities in our international network, among others, are shown within the Large Corporates business area.

In the business with Financial Institutions, selected FI customers are provided with the entire UniCredit platform simply and efficiently and served in dedicated teams for banks, insurances, fund managers and public institutions. In PIP, we offer private investors risk management solutions and investment products through our own or third-party networks. As a rule, the complete range of the Bank's products is available to corporate customers and to financial institutions at HVB's foreign branches.

In detail, the range of products and services of Corporates includes the following products of Client Solutions, UniCredit's global product factory:

– Advisory & Financing Solutions (A&FS) bundles the business involving advisory services into transactions, capital structure, ESG and rating as well as financing solutions, among other things. Depending on the rating (investment grade / non-investment grade) and business requirements, structured solutions with loans, bonds or asset-based finance can be offered.

– Trading & Correspondent Banking offers a broad array of innovative products in the areas of trade finance and working capital, thus meeting customer needs in connection with transactions in the areas of the optimisation of cash flows and operating resources as well as mainly short-term import and export financing services.

Segment Reporting (Continued)

– Client Risk Management is a customer-oriented product area that supports business with UniCredit's corporate and institutional customers as an integral part of the value chain. This product area extends over all asset classes: interest, currencies, commodities and equity derivatives. It offers institutional customers, corporate customers and private investors risk management solutions and investment products through the Group's own or third-party networks.

– Group Payment Solutions offers a wide range of innovative products in the area of cash management, thus meeting customer needs in connection with transactions in the areas of payment services, account information and liquidity management.

Other business area
The Other business area (Central Functions) combines the remaining areas not directly relating to customers: Operations, Digital & Information, Corporate Center and Treasury. Furthermore, payments recognised through profit or loss between the individual companies belonging to and consolidated within HVB Group, whose amounts are of minor importance, are also reported under this area.

Since 1 May 2023, the Chief Digital & Operating Officer (CDOO) has been responsible for both the Digital & Information division and the Operations division as a whole. The Digital & Information and Operations divisions are set to be completely merged into Digital & Operations at the beginning of 2024.

Operations sees itself as a central internal service provider for the Bank's day-to-day operations. While the Bank's sales units conclude business transactions with customers, Operations attends to the continued handling of internal processes insofar as these are within its remit. The activities of Operations cover core banking and investment banking operations. In addition, Operations is responsible for the physical security of the Bank's customers, employees and assets, crisis management, strategic real estate management, the valuation of real estate collateral in the context of granting and processing loans, logistics, cost management as well as outsourcing and third-party management. Payments, securities settlement, parts of back-office processing, purchasing and facility management are purchased from outside sources and managed through what is known as the Retained Organisation functions in Operations.

Digital & Information manages the entire digital transformation of HVB. The division supports the achievement of business and corporate objectives vis-à-vis customers and employees and fosters a digital culture within HVB Group through targeted initiatives with internal and external stakeholders.

Digital & Information bears overall responsibility for the digital agenda for retail and corporate customers, including steering the digital roadmap. This involves creating state-of-the-art customer experiences across all channels (e.g. online, app, remote, smart banking, branches) and digital products (e.g. accounts and payments, lending, deposits and investments as core banking products) and providing support in simplifying related products.

The division is also responsible for promoting and coordinating the implementation of HVB's data strategy, supporting relevant functions relating to data architectures and products, developing local data products and enhances analytical skills for both the retail and the corporate customer business. Digital & Information protects HVB's digital services against risks in the context of information security threats in line with the Group's digital security strategy and at the same time fosters the introduction of best practices for cyber security. Further focal points are the management and control of the most important IT governance processes. The development of IT applications and IT operations have been outsourced to the group parent and are managed via the respective Retained Organisation function in Digital & Information. In addition, Digital & Information is the central unit for simplifying processes and for contract management with specific partners and service providers.

The Corporate Center includes the Finance, CRO (Chief Risk Office) and CEO (Chief Executive Office) business units as well as profits and losses generated by other banking activities, consolidated subsidiaries and non-consolidated holdings that are not assigned to any other business area. Furthermore, the Corporate Center incorporates the net income from securities portfolios for which the Executive Board is responsible. It also contains components of profit or loss from decisions taken by management with regard to asset/liability management. In addition, the Corporate Center incorporates the Real Estate Restructuring customer portfolio.

Treasury, in particular Medium Long Term (MLT), is responsible for funding, interest rate management and cash pooling in the medium- and long-term interest book, while Short Term Funding & IR Management is responsible for liquidity, interest and KPI management over the short term and for collateral trading. The main components of income come from securities portfolios where income is generated through maturity transformation and spread components. Further earnings drivers are short-term interest rate and liquidity management where spreads contribute to profits. Collateral Trading generates both interest and commission income.

Information on products and services at company level

The information required by IFRS 8.32 on income from external customers generated from the products and services of HVB Group is contained in the disclosures regarding the income statement in these notes to the consolidated financial statements.

32 Income statement, broken down by operating segment

Income statement, broken down by operating segment for the period from 1 January to 31 December 2023

INCOME/EXPENSES (€ millions)	RETAIL	CORPORATES	OTHER	HVB GROUP
Net interest	1,062	1,411	216	2,689
Dividends and other income from equity investments	1	2	—	3
Net fees and commissions	508	961	(21)	1,448
Net trading income	(33)	1,216	73	1,256
Net other expenses/income	11	—	24	34
OPERATING INCOME	**1,548**	**3,589**	**292**	**5,430**
Payroll costs	(367)	(512)	(454)	(1,333)
Other administrative expenses	(572)	(852)	444	(980)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(8)	(12)	(74)	(95)
Operating costs	**(948)**	**(1,376)**	**(84)**	**(2,408)**
OPERATING PROFIT/(LOSS)	**601**	**2,213**	**209**	**3,022**
Net write-downs of loans and provisions for guarantees and commitments	(151)	(11)	(17)	(179)
NET OPERATING PROFIT/(LOSS)	**450**	**2,202**	**192**	**2,844**
Provisions for risks and charges	(25)	(175)	9	(192)
Restructuring costs	(146)	(174)	(15)	(335)
Net income from investments	(84)	6	(111)	(188)
PROFIT/(LOSS) BEFORE TAX	**194**	**1,859**	**75**	**2,128**
Income tax for the period	(28)	(383)	6	(404)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**167**	**1,476**	**83**	**1,725**
attributable to the shareholder of UniCredit Bank GmbH	167	1,476	84	1,726
attributable to minorities	—	—	(1)	(1)

Segment Reporting (CONTINUED)

Reconciliation of the segmented income statement to the income statement from 1 January to 31 December 2023

INCOME/EXPENSES (€ millions)	INCOME STATEMENT, BROKEN DOWN BY OPERATING SEGMENT	RECLASSI-FICATION	ACCOUNTING AND VALUATION DIFFERENCES	CONSOLIDATED INCOME STATEMENT
Net interest	2,689	49	—	2,739
Reallocation of net interest from specific held-for-trading portfolios		100	—	
Compounding of provisions and of provisions for contingent liabilities		(45)	—	
Effect of derecognition of TLTRO III		—	—	
Interest expense for pension provisions		(6)	—	
Dividends and other income from equity investments	3	27	—	30
Dividends from assets mandatorily at FVTPL		27	—	
Net fees and commissions	1,448	(282)	—	1,165
Expense for purchased securities services for held-for-trading portfolios		37	—	
Share of commission from the placement of securities and derivatives		(109)	—	
Imputed sales margin for derivatives and FX spot transactions		(210)	—	
Net trading income	1,256	307	—	1,564
Financial assets mandatorily at FVTPL		(15)	—	
Financial liabilities designated at FVTPL		(49)	—	
Net gains/(losses) on the sale of securities (held-for-sale business model)		(1)	—	
Hedge accounting effects		202	—	
Fair value measurement of equity instruments		(20)	—	
Buy-backs of securities issued – recognised at cost		—	—	
Net gains/(losses) on the sale of performing securities (hold-to-maturity business model)		(2)	—	
Dividends from assets mandatorily at FVTPL		(27)	—	
Reallocation of net interest from specific held-for-trading portfolios		(100)	—	
Closing costs for derivatives with Russian banks		—	—	
Share of commission from the placement of securities and derivatives		109	—	
Net gains/(losses) on the sale of non-performing securities (hold-to-maturity business model)		—	—	
Imputed sales margin for derivatives and FX spot transactions		210	—	
Net gains/(losses) on financial assets and liabilities at fair value	n/a	(117)	—	(117)
Financial assets mandatorily at FVTPL		15	—	
Financial liabilities designated at FVTPL		49	—	
Net gains/(losses) on the sale of securities (held-for-sale business model)		1	—	
Hedge accounting effects		(202)	—	
Fair value measurement of equity instruments		20	—	
Net gains/(losses) on non consolidated subsidiaries mandatorily at FVTPL		—	—	
Net gains/(losses) on derecognition of financial instruments measured at cost	n/a	(17)	—	(17)
Net gains/(losses) on the sale of performing loans and receivables, and securities (hold-to-maturity business model)		(17)	—	
Effect of derecognition of TLTRO III		—	—	
Buy-backs of securities issued – recognised at cost		—	—	
Net other expenses/income	34	(304)	13	(255)
Net gains/(losses) on the sale of performing loans and receivables (hold-to-maturity business model)		19	—	
Net gains/(losses) on the valuation/disposal of investment properties and operating leases		(69)	—	
Net gains/(losses) on the valuation of inventories		(75)	—	
European bank levy		(179)	—	
Other effects		—	—	
Elimination of UCI intragroup transaction CEE		—	—	
Adjustment of managerial scope of consolidation		—	13	
Retrospective intragroup transfer from UniCredit Services S.C.p.A.		—	—	
OPERATING INCOME	**5,430**	**(337)**	**13**	**5,109**
Payroll costs	(1,333)	8	(8)	(1,334)
Adjustment of managerial scope of consolidation		—	(8)	
Retrospective intragroup transfer from UniCredit Services S.C.p.A.		—	—	

INCOME/EXPENSES (€ millions)	INCOME STATEMENT, BROKEN DOWN BY OPERATING SEGMENT	RECLASSI-FICATION	ACCOUNTING AND VALUATION DIFFERENCES	CONSOLIDATED INCOME STATEMENT
Interest expense for pension provisions		6	—	
Compounding of provisions		2	—	
Other administrative expenses	(980)	(61)	(4)	(1,045)
Adjustment of managerial scope of consolidation		—	(4)	
Retrospective intragroup transfer from UniCredit Services S.C.p.A.		—	—	
Deposit guarantee scheme		(32)	—	
Other effects		—	—	
Expense for purchased securities services for held-for-trading portfolios		(37)	—	
Depreciation on leasehold improvements in buildings		5	—	
Compounding of provisions		3	—	
Amortisation, depreciation and impairment losses on intangible and tangible assets	(95)	(54)	—	(150)
Depreciation on leasehold improvements in buildings		(5)	—	
Retrospective intragroup transfer from UniCredit Services S.C.p.A.		—	—	
Net write-ups and write-downs on land and buildings		(49)	—	
Operating costs	**(2,408)**	**(107)**	**(12)**	**(2,529)**
OPERATING PROFIT/(LOSS)	**3,022**	**(444)**	**1**	**2,580**
Net write-downs of loans and provisions for guarantees and commitments	(179)	3	9	(167)
Impairments/writebacks of securities at cost and at FVTOCI		2	—	
Net gains/(losses) on the sale of non-performing securities (hold-to-maturity business model)		—	—	
Compounding of provisions for contingent liabilities		1	—	
Closing costs for derivatives with Russian banks		—	—	
Valuation allowances relating to group-affiliated companies in Russia		—	9	
NET OPERATING PROFIT/(LOSS)	**2,844**	**(441)**	**10**	**2,413**
Provisions for risks and charges	(192)	224	—	32
European bank levy and deposit guarantee scheme		211	—	
Compounding of provisions		13	—	
Irrevocable payment commitments provided for bank levy and deposit guarantee scheme recognised as an expense		—	—	
Restructuring costs	(335)	26	—	(309)
Compounding of provisions		26	—	
Net income from investments	(188)	188	—	—
Impairments/writebacks of securities at cost and at FVTOCI		(2)	—	
Net gains/(losses) on the valuation/disposal of investment properties and operating leases		69	—	
Net gains/(losses) on the valuation of inventories		75	—	
Net gains/(losses) on remeasurement of consolidated companies		(3)	—	
Net gains/(losses) on non consolidated subsidiaries mandatorily at FVTPL		—	—	
Unscheduled write-ups and write-downs on land and buildings		49	—	
Net gains/(losses) on remeasurement of consolidated companies	n/a	3	—	3
PROFIT/(LOSS) BEFORE TAX	**2,128**	**—**	**10**	**2,139**
Income tax for the period	(404)	—	—	(404)
Tax on valuation allowances relating to group-affiliated companies in Russia		—	—	
Elimination of UCI intragroup transaction CEE		—	—	
Other effects		—	—	
Differences arising from the adjustment of the estimated deferred taxes between UniCredit and HVB		—	—	
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**1,725**	**—**	**10**	**1,735**
attributable to the shareholder of UniCredit Bank GmbH	1,726	—	10	1,736
attributable to minorities	(1)	—	—	(1)

Segment Reporting (Continued)

Income statement, broken down by operating segment for the period from 1 January to 31 December 2022

INCOME/EXPENSES (€ millions)	RETAIL	CORPORATES	OTHER	HVB GROUP
Net interest	780	1,782	30	2,593
Dividends and other income from equity investments	1	3	1	4
Net fees and commissions	531	922	(25)	1,427
Net trading income	25	690	204	919
Net other expenses/income	21	44	41	106
OPERATING INCOME	**1,359**	**3,440**	**250**	**5,050**
Payroll costs	(379)	(532)	(506)	(1,417)
Other administrative expenses	(585)	(899)	492	(992)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(5)	(16)	(89)	(109)
Operating costs	**(969)**	**(1,447)**	**(103)**	**(2,518)**
OPERATING PROFIT/(LOSS)	**390**	**1,994**	**148**	**2,532**
Net write-downs of loans and provisions for guarantees and commitments	60	(399)	(52)	(392)
NET OPERATING PROFIT/(LOSS)	**449**	**1,594**	**96**	**2,140**
Provisions for risks and charges	(8)	(246)	(9)	(263)
Restructuring costs	2	(78)	(5)	(81)
Net income from investments	(8)	4	9	5
PROFIT/(LOSS) BEFORE TAX	**436**	**1,274**	**91**	**1,801**
Income tax for the period	(134)	(410)	10	(534)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**302**	**865**	**100**	**1,267**
attributable to the shareholder of UniCredit Bank GmbH	302	865	100	1,267
attributable to minorities	—	—	—	—

Development of the Retail operating segment

INCOME/EXPENSES (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Net interest	1,062	780
Dividends and other income from equity investments	1	1
Net fees and commissions	508	531
Net trading income	(33)	25
Net other expenses/income	11	21
OPERATING INCOME	**1,548**	**1,359**
Payroll costs	(367)	(379)
Other administrative expenses	(572)	(585)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(8)	(5)
Operating costs	**(948)**	**(969)**
OPERATING PROFIT/(LOSS)	**601**	**390**
Net write-downs of loans and provisions for guarantees and commitments	(151)	60
NET OPERATING PROFIT/(LOSS)	**450**	**449**
Provisions for risks and charges	(25)	(8)
Restructuring costs	(146)	2
Net income from investments	(84)	(8)
PROFIT/(LOSS) BEFORE TAX	**194**	**436**
Income tax for the period	(28)	(134)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**167**	**302**
attributable to the shareholder of UniCredit Bank GmbH	167	302
attributable to minorities	—	—
Cost-income ratio in % (ratio of operating costs to operating income)	61.2	71.3

In the 2023 financial year, the Retail operating segment generated operating profit (before net write-downs of loans and provisions for guarantees and commitments) of €601 million and is thus a sharp €211 million (54.1%) higher than in the previous-year period.

At €1,548 million, operating income was a significant €189 million (13.9%) up on the previous year's level of €1,359 million. Net interest of €1,062 million contained in operating income was a sharp €282 million (36.2%) higher than the amount of €780 million recognised in the previous-year period due to the significant rise in interest rates since the second half of 2022. Despite a stable level in the volume of new business, net interest generated in lending activities fell from €347 million in the previous-year period to €329 million in the reporting period as a result of various one-off effects in real estate financing. By contrast, there was a sharp increase of €350 million to €669 million in net interest from deposit-taking operations on the back of higher market interest rates.

Compared with the previous-year period, net fees and commissions fell by a marked €23 million to €508 million. The slight increase in income generated with transactional banking services was unable to make up for the slight decline in the securities business due to the challenging market environment.

There was a significant reduction of €58 million in net trading income, which was down from €25 million in the previous-year period to minus €33 million in the reporting period. The reason for this is the revaluation of the property fund units owned by Wealthcap, our real assets subsidiary.

Net other expenses/income reports income of €11 million for the reporting period and has thus fallen a sharp €10 million compared with the previous-year period.

Segment Reporting (Continued)

Compared with the previous-year period, operating costs fell a slight €21 million (2.2%) to €948 million in the reporting period. This is due to lower payroll costs that were down by a €12 million (3.2%) to €367 million compared with the previous-year period. Other administrative expenses were also down by €13 million (2.2%) to €572 million on the back of lower expenses for postage, association fees and charged back-office activities in particular compared with the previous-year period.

The cost-income ratio fell significantly to 61.2% in the reporting period compared with 71.3% in the previous-year period.

The item "Net write-downs of loans and provisions for guarantees and commitments" shows a net addition of €151 million in the reporting period compared with a net reversal of €60 million in the previous-year period. In the reporting period, net additions of general loan loss allowances on the loan portfolio due to updated macroeconomic expectations and adjustments to LGD parameters left their mark here.

At €450 million, net operating profit was a slight €1 million higher than the profit of €449 million generated in the previous-year period.

There was a net expense of €25 million from provisions for risks and charges in the reporting period compared with the €8 million in the previous-year period.

In the reporting year, there was an increase of €148 million to €146 million in restructuring costs from a net reversal of €2 million in the previous-year period. These relate to further restructuring measures under the existing UniCredit Unlocked strategic plan and expenses for adjustments to existing IT activities/other service areas.

Net income from investments reports a negative result of €84 million in the reporting period and was thus a sharp €76 million down on the negative result of €8 million posted for the same period in the previous year. This can be attributed to the revaluation of real estate held by Wealthcap, our real assets subsidiary.

Overall, the Retail operating segment generated profit before tax of €194 million in the reporting period, which is a sharp decline on the profit of €436 million generated in the previous-year period. The significant increase in operating income and the marked decline in operating costs were unable to offset the sharp increases in net write-downs of loans and provisions for guarantees and commitments and in restructuring costs and the very significant deterioration in net income from investments.

In the reporting period, the tax expense incurred for income tax for the period comes to €28 million, which reflects a sharp decrease on the tax expense of €134 million in the previous-year period. This is attributable to the significantly lower profit before tax.

The Retail operating segment reports a profit after tax of €167 million for 2023, which is considerably lower than the comparative figure of €302 million in the previous-year period. At 9.7%, the RoAC is very significantly lower than the respective value in the previous-year period (21.9%).

Development of the Corporates operating segment

INCOME/EXPENSES (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Net interest	1,411	1,782
Dividends and other income from equity investments	2	3
Net fees and commissions	961	922
Net trading income	1,216	690
Net other expenses/income	—	44
OPERATING INCOME	**3,589**	**3,440**
Payroll costs	(512)	(532)
Other administrative expenses	(852)	(899)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(12)	(16)
Operating costs	**(1,376)**	**(1,447)**
OPERATING PROFIT/(LOSS)	**2,213**	**1,994**
Net write-downs of loans and provisions for guarantees and commitments	(11)	(399)
NET OPERATING PROFIT/(LOSS)	**2,202**	**1,594**
Provisions for risks and charges	(175)	(246)
Restructuring costs	(174)	(78)
Net income from investments	6	4
PROFIT/(LOSS) BEFORE TAX	**1,859**	**1,274**
Income tax for the period	(383)	(410)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**1,476**	**865**
attributable to the shareholder of UniCredit Bank GmbH	1,476	865
attributable to minorities	—	—
Cost-income ratio in % (ratio of operating costs to operating income)	38.3	42.1

In the 2023 financial year, the Corporates operating segment generated operating profit (before net write-downs of loans and provisions for guarantees and commitments) of €2,213 million and was thus up a substantial €219 million (11.0%) compared with the previous-year period.

At €3,589 million, operating income was a marked €149 million (4.3%) higher than the figure of €3,440 million reported in the previous year. Within this total, there was a sharp decline of €371 million to €1,411 million in net interest compared with the previous-year period. This decline was driven primarily by the marked decrease in net interest from the lending business, the negative impact of higher market interest rates on refinancing trading activities (positive counter-effect is reflected in net trading income), the discontinuation of the TLTRO coupled with lower income from the resolution or recovery of non-performing loans. This was offset by the positive impact of the trend in market interest rates on the profit contribution from deposit-taking operations, where margins were widened.

The item “Dividends and other income from equity investments” totalled €2 million (previous year: €3 million).

Net fees and commissions increased a marked €39 million (4.2%) to €961 million in the reporting period compared with the figure of €922 million in the previous-year period. This development is based on significantly higher income from the lending and capital market business.

Segment Reporting (Continued)

There was a sharp rise of €526 million to €1,216 million in net trading income compared with the previous-year period. This was mainly due to income from strong business in the rates derivatives trading area. In addition to the increase in volumes, the significant rise seen in market interest rates (the counter-effect is reflected in net interest) contributed to the higher net trading income. In the previous-year period, net trading income was adversely affected by a loss in fair value.

Net other expenses/income shows a result of €0 million, which is thus a sharp €44 million down on the net income of €44 million reported in the previous-year period. Income from the premature termination of lease agreements had an impact on this item in the previous-year period, whereas a higher secondary market sales loss weighed down the result in the reporting period.

At €1,376 million in the reporting period, operating costs are a notable €71 million (4.9%) lower than the €1,447 million recorded for the previous-year period. There was a marked decline of €20 million (3.8%) to €512 million in payroll costs, which were down as a result of the reduction in full-time positions and lower payments for pension obligations. Other administrative expenses of €852 million also fell a marked 5.2% compared with the previous-year period. At €12 million, depreciation and amortisation was down significantly by 25.0% compared with the level reported in the previous year.

Due to the sharp increase in income, the cost-income ratio fell to 38.3% in 2023 after 42.1% in the previous-year period.

With a net addition of €11 million, net write-downs of loans and provisions for guarantees and commitments improved by a sharp €388 million compared with the net addition of €399 million in 2022. High net additions to net write-downs of loans and provisions for guarantees and commitments had a negative effect in the previous-year period.

Net operating profit recognised in the 2023 financial year amounts to €2,202 million, which is a sharp €608 million higher than the profit of €1,594 million generated in the previous-year period.

There were net provisions for risks and charges of €175 million in the reporting period after €246 million in the previous-year period. This decline is largely due to lower payments to the SRF (European bank levy) in 2023.

In the 2023 financial year, restructuring costs were up by a significant €96 million, increasing from €78 million in the previous-year period to €174 million in the reporting period. These relate to further restructuring measures in connection with the existing UniCredit Unlocked strategic plan and expenses for adjustments to existing IT activities/other services areas.

Net income from investments reports income of €6 million in the reporting period (previous year: €4 million).

Overall, the Corporates operating segment generated profit before tax of €1,859 million in the 2023 financial year, which is thus significantly higher than the previous year's profit of €1,274 million. The reasons for this were the sharp rise in net trading income coupled with the significant decline in net write-downs for loans and provisions for guarantees and commitments. This was offset by the sharp decrease in net interest and the sharp rise in restructuring costs.

At €383 million, income tax for the period shows a marked decrease in tax expense in the current reporting period compared with the tax expense of €410 million in the previous-year period. This development is largely due to higher tax refunds in the reporting period compared with 2022.

The Corporates operating segment reports profit after tax of €1,476 million for the 2023 financial year, which is considerably higher than the profit of €865 million generated in the previous-year period. At 18.0%, the RoAC is very significantly higher than the respective figure of 9.1% in the previous-year period.

Segment Reporting (Continued)

Development of the Other operating segment

INCOME/EXPENSES (€ millions)	1/1-31/12/2023	1/1-31/12/2022
Net interest	216	30
Dividends and other income from equity investments	—	1
Net fees and commissions	(21)	(25)
Net trading income	73	204
Net other expenses/income	24	41
OPERATING INCOME	**292**	**250**
Payroll costs	(454)	(506)
Other administrative expenses	444	492
Amortisation, depreciation and impairment losses on intangible and tangible assets	(74)	(89)
Operating costs	**(84)**	**(103)**
OPERATING PROFIT/(LOSS)	**209**	**148**
Net write-downs of loans and provisions for guarantees and commitments	(17)	(52)
NET OPERATING PROFIT/(LOSS)	**192**	**96**
Provisions for risks and charges	9	(9)
Restructuring costs	(15)	(5)
Net income from investments	(111)	9
PROFIT/(LOSS) BEFORE TAX	**75**	**91**
Income tax for the period	6	10
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**83**	**100**
attributable to the shareholder of UniCredit Bank GmbH	84	100
attributable to minorities	(1)	—
Cost-income ratio in % (ratio of operating costs to operating income)	28.8	41.2

In the 2023 financial year, the Other operating segment generated operating profit (before net write-downs of loans and provisions for guarantees and commitments) of €209 million and is thus a substantial €61 million (41.2%) higher than in the previous-year period.

At €292 million, operating income was a sharp €42 million higher than the previous year's level of €250 million. Net interest in the amount of €216 million in the reporting period rose sharply by €186 million compared with €30 million in the previous-year period. This rise is largely attributable to amounts of €140 million from the positive development in the Bank's asset/liability management and €53 million from the Treasury area.

At €73 million, net trading income fell a significant €131 million compared with the previous-year period. This is due to the decline of €57 million in mark-to-market valuations of FX derivatives and FVO books (realisations of €42 million in the previous-year period) and the loss of €21 million from the fair value measurement of private equity funds. In the previous-year period, income of €19 million was generated on the premature termination of interest rate swaps in Eastern European currencies.

Net other expenses/income of €24 million fell sharply by €17 million compared with the previous year.

At €84 million, operating costs are a sharp €19 million lower than the €103 million in the previous-year period. This is primarily due to lower payroll costs which fell by €52 million (down 10.3%) to €454 million compared with the previous-year period.

On account of the significant increase in net interest, there was a substantial improvement in the cost-income ratio to 28.8% in the reporting period after 41.2% in the previous-year period.

The “Net write-downs of loans and provisions for guarantees and commitments” item reports a net addition of €17 million compared with a net addition of €52 million in the previous-year period. The net addition in the previous-year period contains credit losses totalling €75 million in connection with the closing out of derivatives with Russian banks.

In the 2023 financial year, net operating profit totals €192 million, which is a significant €96 million increase on the figure of €96 million reported in the previous-year period.

Restructuring costs came to €15 million in the reporting period compared with restructuring costs of €5 million in the previous-year period. These mainly relate to the closure of foreign branches in Hong Kong and Luxembourg.

With an expense of €111 million, net income from investments posted a substantial decline of €120 million compared with income of €9 million in net income from investments in the previous-year period. This development is largely due to the results of the fair value measurement of properties that resulted in a net loss of €111 million in the reporting period, after a net gain of €9 million in the previous-year period.

Overall, the Other operating segment reported a profit before tax of €75 million in the reporting period and was thus significantly lower than the profit of €91 million recorded in the previous-year period. The sharp rise in operating income and the sharp decline in operating costs were unable to offset the significant decline in net income from investments.

In the reporting period, income of €6 million was generated from income tax for the period compared to income of €10 million in the previous year.

The Other operating segment reports profit after tax of €83 million for the 2023 financial year, which is considerably lower than the comparative figure of €100 million in the previous-year period. At 4.4%, the RoAC is very significantly lower than the respective value in the previous-year period.

Segment Reporting (Continued)

33 Balance sheet figures, broken down by operating segment

€ millions	RETAIL	CORPORATES	OTHER	HVB GROUP[2]
Loans and receivables with customers (at cost)[1]				
31/12/2023	36,394	88,215	1,556	126,165
31/12/2022	36,669	92,001	2,445	131,115
Deposits from customers				
31/12/2023	64,712	65,763	8,806	139,282
31/12/2022	64,302	71,365	11,141	146,809
Risk-weighted assets compliant with Basel III (including equivalents for market risk and operational risk)				
31/12/2023	11,371	55,248	2,902	69,520
31/12/2022	11,947	64,428	4,755	81,130

1 "Loans and receivables with customers (at cost)" do not contain any securities holdings for internal management purposes.
2 Balance sheet figures of non-current assets or disposal groups held for sale are shown separately in the Notes "Non-current assets or disposal groups held for sale" and "Liabilities of disposal groups held for sale".

34 Employees, broken down by operating segment

Number of employees converted to full-time equivalents (FTE):

	31/12/2023	31/12/2022
Retail	3,458	3,716
Corporates	2,745	3,161
Other	3,417	3,989
Total	**9,620**	**10,866**

The previous-year figures were adjusted for the breakdown by operating segment.

35 Segment reporting by region

The allocation of amounts to regions is based on the head office of the Group companies or offices involved.

Income statement, broken down by region

	2023		2022	
€ millions	**OPERATING INCOME**	**OPERATING PROFIT/(LOSS)**	**OPERATING INCOME**	**OPERATING PROFIT/(LOSS)**
Germany	4,874	2,144	4,828	1,837
Italy	369	236	167	(19)
Luxembourg	(13)	(25)	46	38
United Kingdom	4	40	83	231
Rest of Europe	5	112	14	57
Americas	113	89	93	35
Asia	5	6	41	(15)
Consolidation	(248)	(22)	(523)	(26)
HVB Group	**5,109**	**2,580**	**4,749**	**2,138**

Total assets, broken down by region

€ millions	**2023**	**2022**
Germany	308,053	339,005
Italy	22,716	27,374
Luxembourg	470	4,379
United Kingdom	121	112
Rest of Europe	8,117	8,598
Americas	3,686	4,598
Asia	30	3,493
Consolidation	(59,901)	(69,553)
HVB Group	**283,292**	**318,006**

Segment Reporting (Continued)

Property, plant and equipment, broken down by region

€ millions	2023	2022
Germany	1,961	2,254
Italy	27	24
Luxembourg	45	69
United Kingdom	1	4
Rest of Europe	—	1
Americas	13	13
Asia	3	4
Consolidation	—	—
HVB Group	**2,050**	**2,369**

Investment properties, broken down by region

€ millions	2023	2022
Germany	193	250
Italy	—	—
Luxembourg	61	101
United Kingdom	—	—
Rest of Europe	—	—
Americas	—	—
Asia	—	—
Consolidation	—	—
HVB Group	**254**	**351**

Employees, broken down by region (number converted into full-time equivalents (FTE))

	2023	2022
Germany	8,958	10,051
Italy	342	328
Luxembourg	13	31
United Kingdom	87	161
Rest of Europe	101	127
Africa	—	—
Americas	81	84
Asia	39	84
HVB Group	**9,620**	**10,866**

Notes to the Income Statement

36 Net interest

€ millions	2023	2022
Interest income	8,663	3,897
from financial assets at cost	7,076	2,955
from financial assets at FVTOCI	127	67
from financial assets at FVTPL and hedging derivatives	446	401
from financial assets held for trading	968	400
other interest income	46	74
Negative interest on financial assets	(4)	(187)
Interest expense	(5,925)	(1,455)
from financial liabilities at cost	(3,843)	(1,051)
of which from lease liabilities	(2)	(4)
from financial liabilities at FVTPL and hedging derivatives	(1,045)	(66)
from financial liabilities held for trading	(983)	(360)
other interest expense	(54)	22
Negative interest on financial liabilities	5	371
Net interest	**2,739**	**2,626**

In the reporting year, HVB Group generated €57 million (previous-year period: €39 million) in interest income on impaired financial assets that are valued at cost.

The increase in net interest is largely due to a widening of margins in the deposit-taking business following the higher interest rate environment while the rise in funding costs for the held-for-trading portfolio weighed on net interest. This is offset by an increase in net trading income on the back of higher market interest rates.

In the previous-year period, the negative interest on financial liabilities contained €107 million relating to the ECB's TLTRO III programme at the time. When calculating the effective interest for these liabilities, expected premiums were included that depend on the increase in net lending of eligible loans (loans to the non-financial sector in the eurozone without private construction finance). In the fourth quarter of 2022, the ECB adjusted the conditions resulting in the derecognition of these liabilities under the TLTRO III programme. Liabilities under the successor TLTRO III programme are subject to interest at the average key ECB interest rate.

Effects from the compounding of provisions totalling €44 million are contained under other interest expense in the reporting period. The discounting of provisions was generally waived in the previous-year period due to the negative interest environment prevailing at the time.

Notes to the Income Statement (Continued)

Net interest attributable to related parties

The item "Net interest" includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	(152)	(50)
of which:		
UniCredit S.p.A.	(186)	(61)
sister companies	34	10
subsidiaries	—	1
Joint ventures	—	—
Associates	—	—
Other investees	6	6
Total	**(146)**	**(44)**

37 Dividends and other income from equity investments

€ millions	2023	2022
Dividends and other similar income	28	28
Companies accounted for using the equity method	2	3
Total	**30**	**31**

38 Net fees and commissions

€ millions	2023	2022
Fee and commission income	1,572	1,487
Securities services for customers	767	696
Payment transactions	322	319
Lending business	181	147
Guarantees	151	149
Distribution of third-party products	98	107
Other commission income	53	69
Fee and commission expense	(407)	(367)
Securities services for customers	(253)	(224)
Payment transactions	(79)	(77)
Lending business	(9)	(9)
Guarantees	(13)	(5)
Distribution of third-party products	—	—
Other commission expense	(53)	(52)
Net fees and commissions	**1,165**	**1,120**

Net fees and commissions include fee and commission income of €45 million (previous-year period: €69 million) and fee and commission expense of €0 million (previous-year period: €0 million) that relate to financial instruments not measured at fair value through profit or loss.

The fee and commission income reported under this item largely consists of income from contracts with customers (IFRS 15). Fee and commission income and fee and commission expense charged for individual services are recognised as soon as the service has been provided. In particular, this includes fees for processing securities transactions, payment services, commission in the lending business that is not similar in nature to interest and is not charged pro rata temporis as well as fee and commission income for the brokerage of third-party products. In contrast, deferred income is recognised for fees and commissions relating to a specific period. In particular, this includes account management fees, guarantee commissions and commission in the lending business that are charged pro rata temporis.

The agreed fees relate to the respective group of banking services. It is not necessary to divide the agreed fees between various service obligations that differ in nature. If fees for a package of services are agreed, this is customary in the sector and results in comparable fee and commission income. For example, an account management fee can also include the provision of payment services when using the account. Income from both services represents fee and commission income from payments.

Net fees and commissions from related parties
The item "Net fees and commissions" includes the following amounts attributable to related parties:

€ millions	**2023**	**2022**
Non-consolidated affiliates	(85)	(50)
of which:		
UniCredit S.p.A.	(60)	(38)
sister companies	(25)	(12)
subsidiaries	—	—
Joint ventures	—	—
Associates	—	—
Other investees	1	1
Total	**(84)**	**(49)**

39 Net trading income
Net trading income totals €1,564 million in the reporting period (previous-year period: €932 million).

In particular, income from the rate derivatives business in the areas of fixed income, currencies and commodities and equities and credit trading had an effect here. Key factors driving total income were stable customer demand for hedging transactions at a high level and rising, high market interest rates. The countereffect can be seen in net interest.

Net trading income includes valuation discounts in the context of the fair value measurement of derivatives, particularly credit value adjustments and funding value adjustments. The reduction in valuation discounts in connection with the fair value measurement had a positive impact and resulted in income of €35 million. In the previous-year period, income totalled €62 million.

Notes to the Income Statement (Continued)

40 Net gains/losses on financial assets and liabilities at fair value

€ millions	2023	2022
Financial assets mandatorily at FVTPL	15	(66)
Financial liabilities designated at FVTPL	49	(113)
Derecognition from other comprehensive income	1	17
Hedge accounting effects	(202)	265
Fair value equity	20	46
Total	**(117)**	**149**

€ millions	2023	2022
Fair value hedges	(202)	265
Changes in fair value of hedged items	(1,367)	5,350
Portfolio fair value hedges	(1,722)	6,205
Micro fair value hedges	355	(855)
Changes in fair value of hedging instruments	1,165	(5,085)
Portfolio fair value hedges	1,527	(5,913)
Micro fair value hedges	(362)	828
Cash flow hedges	—	—
Net gains/(losses) on cash flow hedges (only ineffective part)	—	—
Total	**(202)**	**265**

The hedge accounting effects of the main hedge accounting approaches of HVB Group are shown below:

Hedge effectiveness is measured prospectively based on sensitivity as well as retrospectively using dollar offset or regression analysis. Sources of ineffectiveness are management within a range of 80%/125%, lack of a 1:1 ratio between the hedged item and the hedging transaction as well as discounting differences between the hedged item and hedging transactions.

Micro fair value hedge for holdings at FVTOCI

	REMAINING TERM			CUMULATIVE AMOUNT OF THE HEDGE-RELATED ADJUSTMENT TO THE FAIR VALUE INCLUDED IN THE CARRYING AMOUNT OF THE HEDGED ITEM RECOGNISED IN THE BALANCE SHEET		CARRYING AMOUNTS		CHANGE IN FAIR VALUE USED TO RECOGNISE AN INEFFECTIVE NESS IN THE HEDGE FOR THE PERIOD
€ millions	LESS THAN 1 YEAR	1 YEAR TO 5 YEARS	MORE THAN 5 YEARS	ASSETS	LIABILITIES	ASSETS	LIABILITIES	
Balance as at 31/12/2023								
Nominal								
Hedged items								
EUR	1,206	3,102	1,788	—	—	—	—	—
USD	587	2,741	54	—	—	—	—	—
Hedging transactions				—	—	—	—	—
EUR	1,206	3,027	1,738	—	—	—	—	—
USD	63	2,767	88	—	—	—	—	—
Interest rate sensitivities in BPV								
Hedged items								
EUR	—	(1)	(1)	—	—	—	—	—
USD	—	(1)	—	—	—	—	—	—
Hedging transactions								
EUR	—	1	1	—	—	—	—	—
USD	—	1	—	—	—	—	—	—
Carrying amounts								
Hedged items	—	—	—	(293)	—	9,215	—	—
Hedging transactions	—	—	—	—	—	283	11	—
Hedge result								8
Hedged items	—	—	—	—	—	—	—	332
Hedging transactions	—	—	—	—	—	—	—	(324)
Balance as at 31/12/2022								
Nominal								
Hedged items								
EUR	2,487	3,414	1,190	—	—	—	—	—
USD	32	3,101	83	—	—	—	—	—
Hedging transactions								
EUR	2,487	3,404	1,190	—	—	—	—	—
USD	32	3,132	82	—	—	—	—	—
Interest rate sensitivities in BPV								
Hedged items								
EUR	—	(1)	(1)	—	—	—	—	—
USD	—	(1)	—	—	—	—	—	—
Hedging transactions								
EUR	—	1	1	—	—	—	—	—
USD	—	1	—	—	—	—	—	—
Carrying amounts								
Hedged items	—	—	—	(661)	—	9,733	—	—
Hedging transactions	—	—	—	—	—	401	2	—
Hedge result								(29)
Hedged items	—	—	—	—	—	—	—	(786)
Hedging transactions	—	—	—	—	—	—	—	757

Notes to the Income Statement (Continued)

The table shown above compares the nominal amounts of the hedged items and the hedging transactions. In addition, the interest rate sensitivities are stated in basis points (bps). This means that if the interest rate changes by one basis point (0.01%), the fair value will change by the amount stated in euro millions. The statement of interest rate sensitivities in bps is a suitable instrument for describing the effectiveness of a hedge.

Securities holdings, which are allocated to the balance sheet item “Financial assets at FVTOCI”, are hedged against interest rate risks separately for each transaction through a hedging transaction. This includes up-front payments on conclusion of interest rate swaps to compensate for premiums and discounts in the purchase price of securities, which means that their fair value is not equal to zero at the inception of the hedge. Furthermore, the fair value of derivatives also contains accrued interest (dirty fair value) whereas accrued interest for hedged items is allocated to these directly and is thus not included in the cumulative amount of hedge-related adjustments to the carrying amount of the hedged items. Consequently, the net fair value of hedging derivatives does not equal the cumulative amount of hedge-related adjustments to the carrying amount of the hedged items.

Micro fair value hedge for holdings at cost

The micro fair value hedges for holdings at cost (loans and receivables with customers) are shown below:

	REMAINING TERM			CUMULATIVE AMOUNT OF THE HEDGE-RELATED ADJUSTMENT TO THE FAIR VALUE INCLUDED IN THE CARRYING AMOUNT OF THE HEDGED ITEM RECOGNISED IN THE BALANCE SHEET		CARRYING AMOUNTS		CHANGE IN FAIR VALUE USED TO RECOGNISE AN INEFFECTIVENESS IN THE HEDGE FOR THE PERIOD
€ millions	LESS THAN 1 YEAR	1 YEAR TO 5 YEARS	MORE THAN 5 YEARS	ASSETS	LIABILITIES	ASSETS	LIABILITIES	
Balance as at 31/12/2023								
Nominal								
Hedged items								
JPY	—	256	384	—	—	—	—	—
USD	—	356	—	—	—	—	—	—
EUR	—	—	—	—	—	—	—	—
Hedging transactions								
JPY	—	584	808	—	—	—	—	—
USD	—	357	—	—	—	—	—	—
EUR	—	—	—	—	—	—	—	—
Interest rate sensitivities in BPV								
Hedged items								
JPY	—	—	—	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
EUR	—	—	—	—	—	—	—	—
Hedging transactions								
JPY	—	—	—	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
EUR	—	—	—	—	—	—	—	—
Carrying amounts								
Hedged items	—	—	—	(45)	—	1,021	—	—
Hedging transactions	—	—	—	—	—	—	22	—
Hedge result								(15)
Hedged items	—	—	—	—	—	—	—	23
Hedging transactions	—	—	—	—	—	—	—	(38)
Balance as at 31/12/2022								
Nominal								
Hedged items								
JPY	2,559	—	711	—	—	—	—	—
USD	—	317	50	—	—	—	—	—
Hedging transactions								
JPY	2,641	200	1,562	—	—	—	—	—
USD	—	318	50	—	—	—	—	—
Interest rate sensitivities in BPV								
Hedged items								
JPY	—	—	—	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
Hedging transactions								
JPY	—	—	—	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
Carrying amounts								
Hedged items	—	—	—	(72)	—	3,660	—	—
Hedging transactions	—	—	—	—	—	—	46	—
Hedge result								2
Hedged items	—	—	—	—	—	—	—	(69)
Hedging transactions	—	—	—	—	—	—	—	71

Notes to the Income Statement (Continued)

The nominal amounts of hedged items and hedging transactions are compared in the table above. In addition, the interest rate sensitivities are stated in basis points (bps). This means that if the interest rate changes by one basis point (0.01%), the fair value will change by the amount stated in euro millions. The statement of interest rate sensitivities in bps is a suitable instrument for describing the effectiveness of a hedge. With regard to hedging derivatives, it should be noted that these were concluded with London Clearing House and are therefore subject to the existing offsetting rules (see Note "Disclosures regarding the offsetting of financial assets and liabilities").

Portfolio fair value hedge

€ millions	REMAINING TERM			CUMULATIVE AMOUNT OF THE HEDGE-RELATED ADJUSTMENT TO THE FAIR VALUE INCLUDED IN THE CARRYING AMOUNT OF THE HEDGED ITEM RECOGNISED IN THE BALANCE SHEET		CARRYING AMOUNTS		CHANGE IN FAIR VALUE USED TO RECOGNISE AN INEFFECTIVENESS IN THE HEDGE FOR THE PERIOD
	LESS THAN 1 YEAR	1 YEAR TO 5 YEARS	MORE THAN 5 YEARS	ASSETS	LIABILITIES	ASSETS	LIABILITIES	
Balance as at 31/12/2023								
Interest rate sensitivities in BPV								
Hedged items								
EUR	1	4	7	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
Hedging transactions								
EUR	(1)	(4)	(7)	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
Carrying amounts								
Hedged items	—	—	—	—	(3,763)	—	—	—
Hedging derivatives	—	—	—	—	—	126	70	—
Hedge result								(195)
Hedged items	—	—	—	—	—	—	—	(1,722)
Hedging transactions	—	—	—	—	—	—	—	1,527
Balance as at 31/12/2022								
Interest rate sensitivities in BPV								
Hedged items								
EUR	—	4	17	—	—	—	—	—
USD	—	1	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
Hedging transactions								
EUR	—	(4)	(17)	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
Carrying amounts								
Hedged items	—	—	—	6	(5,474)	—	—	—
Hedging derivatives	—	—	—	—	—	235	152	—
Hedge result								292
Hedged items	—	—	—	—	—	—	—	6,205
Hedging transactions	—	—	—	—	—	—	—	(5,913)

HVB Group has exercised the option of continuing to apply the provisions of IAS 39 on hedge accounting. The portfolio fair value hedge will thus be continued.

In line with the standard bank risk management procedures for hedging fixed interest rate risks, the interest rate risks entailed in hedged items are managed on a cross-item basis in the portfolio fair value hedge. For this purpose, the interest rate-relevant cash flows of hedged items (loans and receivables with banks (at cost), loans and receivables with customers (at cost), deposits from banks, deposits from customers and debt securities) are allocated separately by currency to maturity buckets and the net position is determined. The interest rate hedging derivatives concluded thus relate to net interest rate risk positions across several items in the respective maturity buckets and not to specific hedged items. The designated hedge relationships are dedesignated every two weeks and then redesignated. As a hedged item may thus have different effects in the respective maturity bucket, hedge accounting effects are presented by reference to interest sensitivity. The statement of interest rate sensitivity by maturity bucket represents an adequate measure for determining hedged interest rate risks. The table shows the changes in fair value in euro millions if the interest rate changes by one basis point (bp or 0.01%).

41 Net gains/losses on derecognition of financial instruments measured at cost

€ millions	**2023**	**2022**
Loans and receivables (performing)	(19)	(3)
Buy-backs of securities issued and other liabilities	—	28
Promissory notes (assets side)	2	4
Total	**(17)**	**29**

42 Net other expenses/income

€ millions	**2023**	**2022**
Other income	161	189
Sale of land and buildings	—	—
Rental income	44	43
Valuation/disposals of investment properties	22	13
Other	95	133
Other expenses	(416)	(327)
Sale of land and buildings	—	—
Valuation/disposals of investment properties	(91)	(17)
Expenses of investment properties	(7)	(7)
Bank levy	(179)	(241)
Other	(139)	(62)
Total	**(255)**	**(138)**

The line item “Valuation/disposals of investment properties” includes either income from valuation gains or disposals or expenses due to valuation losses or disposals. Due to the measurement at fair value through profit or loss of investment properties, such measurement generally has to be adjusted to the anticipated gain on disposal even before derecognition of the asset because a certain amount of time elapses between the receipt of a binding offer for purchase/conclusion of a purchase agreement and the transfer of rights and obligations for the property (derecognition) in which the measurement must be adjusted through profit or loss. Therefore, both items are shown in a single line.

Notes to the Income Statement (Continued)

Net other expenses/income attributable to related parties

The item “Net other expenses/income” includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	35	38
of which:		
UniCredit S.p.A.	18	44
sister companies	17	(6)
Joint ventures	—	—
Associates	—	—
Other investees	—	—
Total	**35**	**38**

43 Operating costs

€ millions	2023	2022
Payroll costs	(1,334)	(1,415)
Wages and salaries	(1,108)	(1,138)
Social security costs	(168)	(172)
Expenses for pensions and similar employee benefits	(58)	(105)
Other administrative expenses	(1,045)	(1,087)
Amortisation, depreciation and impairment losses	(150)	(109)
on property, plant and equipment	(103)	(54)
on software and other intangible assets, excluding goodwill	(7)	(4)
on right-of-use assets (leases)	(40)	(51)
Total	**(2,529)**	**(2,611)**

Wages and salaries includes payments of €9 million (previous-year period: €4 million) made upon the termination of employment contracts. Expenses for similar payments in the context of restructuring measures are recognised under the “Restructuring costs” item in the income statement and explained in the Note “Restructuring costs”.

Operating costs of related parties

The item “Operating costs” includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	(531)	(564)
of which:		
UniCredit S.p.A.	(514)	(546)
sister companies	(5)	(6)
subsidiaries	(12)	(12)
Joint ventures	—	—
Associates	—	—
Other investees	—	—
Total	**(531)**	**(564)**

Share-based payment compliant with IFRS 2
Share-based payments were granted primarily under the Group Incentive System in the reporting year. In addition, UniCredit has two further schemes under which shares were granted that are also accounted for in accordance with IFRS 2: the Long-term Incentive Plans (LTI 2017–2019, LTI 2020–2023). These also involve share-based payments.

Group Incentive System
The Group Incentive System has governed variable remuneration payable to selected employees since the 2010 financial year. This system is built around the principle that the variable remuneration is granted partially in shares and scheduled for disbursement over a number of years.

Employees whose duties have a significant impact on the Bank's risk profile are eligible as beneficiaries under the Group Incentive System. Under the Group Incentive System, the bonus granted for the respective reporting year is split into a cash component and a share component. The cash component is accounted for in accordance with IAS 19, whereas the share component is subject to the rules of IFRS 2.

The cash component is disbursed in tranches over a period of up to eight years. This group of employees thus received 20% to 30% of the bonus for 2022 in cash with the grant at the beginning of 2023, and a further 4% to 20% will be disbursed after the end of the financial years 2023, 2024, 2025, 2026, 2027, 2028 and 2029.

For the remaining bonus amount, the eligible employees received a grant at the beginning of 2023 for the allocation of shares in UniCredit S.p.A. as part of the bonus for 2022, which will be transferred to the eligible employees after the end of the financial years 2023 to 2028.

The deferred payment after the end of the financial years 2023, 2024, 2025, 2026, 2027, 2028 and 2029 and the allocation of shares after the end of the financial years 2023 to 2028 to the eligible employees is subject to the provision that, as part of a malus arrangement, it is ensured that there is no loss or significant reduction in the results both at the level of UniCredit or at the level of the individual eligible employee. This deferral of the allocation therefore also determines the length of the vesting period of the individual tranches.

The fair value of the granted shares is calculated using the average stock market price of UniCredit S.p.A. shares in the month prior to the resolution by the Board of Directors in April 2022 regarding the granted shares, adjusted for a discount for expected dividends during the vesting period.

In the reporting year, 2.5 million UniCredit S.p.A. shares were granted as a component of the bonus granted for 2022, with a fair value of €18.8 million. If a capital measure is implemented after the grant date, the number of shares granted will be adjusted accordingly. The shares granted in 2023 as part of the bonus for 2022 will be transferred in 2024, 2025, 2026, 2027, 2028 and 2029.

Notes to the Income Statement (Continued)

The following table shows the fair values per share at the time of granting the shares:

	2023
Fair value of the shares to be transferred in 2024 (€ per share)	8.606
Fair value of the shares to be transferred in 2025 (€ per share)	7.926
Fair value of the shares to be transferred in 2026 (€ per share)	6.975
Fair value of the shares to be transferred in 2027 (€ per share)	6.038
Fair value of the shares to be transferred in 2028 (€ per share)	5.113
Fair value of the shares to be transferred in 2029 (€ per share)	4.201

The granted bonuses are recognised in the income statement on a pro rata basis over the respective vesting period.

Cash component bonuses for the 2023 financial year falling due for disbursement in 2024 are recognised in full as an expense. Where cash payments are made at a later date, such payments are subject to the condition that the eligible employees remain employed by UniCredit or are partly subject to further performance targets. Accordingly, the vesting period for the bonus granted consists of several financial years (target achievement plus waiting period) and is to be deferred over this period compliant with IAS 19.153 in conjunction with IAS 19.68. Thus, deferred cash payments under the bonus granted for 2023 are recognised as expense in the respective period (starting with the 2023 financial year to the end of the financial year in which the waiting period for the respective tranche ends) on a pro rata basis.

UniCredit S.p.A. delivers shares to the employees for grants made by HVB Group once the conditions for granting shares have been met. HVB Group reimburses the expenses accruing in this connection to UniCredit S.p.A. The expense for the shares transferred corresponds to the fair value of the shares at the grant date.

Long-term Incentive Plans (LTI 2017–2019 and LTI 2020–2023)
The performance period of the Long-term Incentive Plan 2017–2019 ended on 31 December 2019. A review showed that a degree of target attainment of 93.33% was achieved on the basis of the underlying performance criteria and the number of the conditionally granted shares was reduced accordingly.

As a result, a subsequent Long-term Incentive Plan (LTI 2020–2023) was introduced in the 2020 financial year. Analogously to the LTI 2017–2019 that had ended previously, the plan constitutes a component of the remuneration system in place at UniCredit for top management and key players at HVB. This means that a portion of the variable remuneration of top management is not specified until after an assessment period of several years. The plan consists of a performance period of four years followed by a four-year retention period with an additional obligatory holding period. The grant is wholly based on shares of UniCredit S.p.A. The respective tranches are subject to malus terms and a claw back arrangement which makes it possible to reclaim each individual share tranche up to five years after vesting.

The fair value of the conditionally granted shares is calculated using the average stock market price of UniCredit S.p.A. shares in the month prior to the resolution by the Board of Directors in January 2020 regarding the granting of shares, adjusted for a discount for expected dividends during the vesting period.

The decision on the extent to which these shares are actually granted is made at the end of the performance period, i.e. after the end of the 2023 financial year. HVB bears the costs of implementation of the Long-term Incentive Plan within HVB.

	2023
Fair value of the shares to be transferred in 2025 (€ per share)	9.869
Fair value of the shares to be transferred in 2026 (€ per share)	8.920
Fair value of the shares to be transferred in 2027 (€ per share)	7.972
Fair value of the shares to be transferred in 2028 (€ per share)	7.028
Fair value of the shares to be transferred in 2029 (€ per share)	6.089

UniCredit S.p.A. delivers shares to the employees for grants made by HVB Group once the conditions for granting shares have been met. HVB Group reimburses expenses accruing in this connection to UniCredit S.p.A. The expense for the shares transferred corresponds to the fair value of the shares at the grant date.

Analysis of outstanding shares (Group Incentive System: LTI 2017–2019; LTI 2020–2023):

	2023		2022	
	TOTAL	AVERAGE MATURITY	TOTAL	AVERAGE MATURITY
Outstanding at start of period	**5,181,617**	**June 2024**	**6,488,205**	**November 2023**
Additions				
Newly granted shares	2,495,028	August 2025	1,799,255	May 2024
From corporate transfers	40,889	November 2024	101,067	March 2025
Conditionally granted shares	—	n/a	—	n/a
Disposals				
Forfeited shares	104,973	January 2026	149,020	September 2025
Transferred shares	2,263,514	April 2023	2,511,874	May 2022
From corporate transfers	183,367	December 2024	30,270	April 2023
Expired shares	—	n/a	515,746	July 2026
Total at end of period	**5,165,680**	**June 2025**	**5,181,617**	**June 2024**

In the 2023 financial year, prorated expenses of €20 million (previous-year period: €21 million) accrued for the share component arising from the bonuses granted for 2019 to 2023 in the form of share-based payments compliant with IFRS 2. These expenses are recognised under payroll costs. The provision set aside totalled €55 million (previous-year period: €60 million). The provision covers HVB's future reimbursement of the expense from share-based payments to UniCredit S.p.A.

Notes to the Income Statement (Continued)

44 Net write-downs of loans and provisions for guarantees and commitments

€ millions	2023	2022
Additions	(885)	(1,244)
Allowances for losses on loans and receivables at cost	(686)	(1,038)
Allowances for losses on loans and receivables at FVTOCI	—	—
Allowances for losses on guarantees and indemnities	(199)	(206)
Reversals	668	887
Allowances for losses on loans and receivables at cost	422	549
Allowances for losses on loans and receivables at FVTOCI	1	3
Allowances for losses on guarantees and indemnities	245	335
Gains/(losses) from non-substantial modification	2	—
Recoveries from write-offs of loans and receivables	41	52
Gains/(losses) on the disposal of impaired loans and receivables	7	6
Total	**(167)**	**(299)**

In the reporting period, net additions to net write-downs of loans and provisions for guarantees and commitments totalled €167 million after net additions of €299 million to net write-downs of loans and provisions for guarantees and commitments in the previous-year period. This represents a sharp decline of €132 million (44.1%). The individual effects that offset each other are described below.

In the reporting period, a net amount of €113 million in portfolio allowances (general loan loss provisions - GLLP) was reversed following a net addition of €261 million in the previous-year period. The models used to calculate expected credit losses generally reflect effects from the adjustment of macroeconomic factors. In addition, overlays were applied for certain sub-portfolios that are particularly sensitive to certain risks. These overlays are to be considered supplementary measures to the expected loss models. On the one hand, these risks are geopolitical risks caused by the sudden increase in energy costs, inflation and interest rates for both companies and private individuals. On the other hand, these are risks that have arisen especially in the commercial real estate and construction industry (CRE) as a result of the persistently high level of interest rates. Both overlays largely offset each other since the geopolitical overlay results in a reversal (or a change to specific loan loss provisions) and the CRE overlay in an addition.
Changes in methodology are a further factor for the reversal of a general loan loss provision which was entered in 2022 as a post-model adjustment for products for which the (entire) repayment is made shortly before the maturity of the financing and was reversed in 2023. Contrary to expectations, detailed model implementation enabled a lower loan loss provision to be calculated. There was a reversal also due to the adjustment made to the probability of default (PD) parameters of the acquisition and leveraged finance model stemming from a time series expansion. There was also an addition due to a post model adjustment to an imminent update to the loss-given default model. In view of the macroeconomic situation, updated forward-looking macroeconomic scenarios (marginally lower growth rates in the gross domestic product for 2024, 2025 and 2026 and the lower house price index) resulted in additions to general loan loss provisions. Please refer to the Note “Impairment of financial assets” for further information.

In the reporting period, net additions to specific loan loss provisions total €280 million after net additions of €38 million in the previous-year period. Additions to specific loan loss provisions on account of defaults (no concentration on a specific sector) were partly compensated for by reversals of existing specific loan loss provisions. The need for specific loan loss provisions for direct Russia exposure in connection with the Russia-Ukraine conflict remained at a relatively moderate level in the reporting period.

Net write-downs of loans and provisions for guarantees and commitments attributable to related parties
The item “Net write-downs of loans and provisions for guarantees and commitments” includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	9	(9)
of which:		
UniCredit S.p.A.	—	—
sister companies	9	(9)
Joint ventures	—	—
Associates	—	—
Other investees	—	—
Total	**9**	**(9)**

45 Provisions for risks and charges

In the reporting period, net income of €32 million was generated from the reversal of provisions for risks and charges. In contrast, there was net income of €11 million from the reversal of provisions for risks and charges reported in the previous-year period. No individual items of significance occurred in the reporting period or in the previous-year period.

46 Restructuring costs

Restructuring costs totalled €309 million in the reporting period (previous-year period: €80 million).

Restructuring costs in the reporting year are based on measures that are built on the already existing UniCredit Unlocked strategic plan. The strategic guidelines of the groupwide Unlocked plan in terms of simplification, customer focus and digitalisation are still valid. In the reporting period, further strategic measures were started within the framework of the UniCredit Unlocked strategic plan to support the achievement of the long-term goals of the strategic plan. Among other things, this includes the reorganisation of the Digital & Information and Operations business areas into the Digital & Operations business area, the simplification of HVB’s trading activities through the gradual transfer of individual trading activities to UniCredit S.p.A. and further planned reorganisations.

These measures and the changes in framework conditions require further adjustments to be made in the Bank’s staff planning. Therefore, most of the restructuring costs in the amount of €191 million relate to the planned, socially compatible reduction in staffing levels, which is to be achieved above all by natural fluctuation, early retirement solutions and severance agreements.

HVB Group uses the UniCredit groupwide service offering of IT activities and certain other administrative activities of UniCredit S.p.A. These services are charged to HVB Group by UniCredit S.p.A. according to origin based on cost. In the course of the reorientation of the UniCredit corporate group, further restructuring measures involving the IT activities concerned/other service areas are planned for 2023 and 2024. HVB Group is assuming the pro rata costs of €90 million in 2023 for the areas of UniCredit S.p.A. to be restructured as these provide their services almost exclusively for HVB Group. This one-time payment is offset by a significant reduction in costs in the future as UniCredit S.p.A. can provide equivalent services more cost effectively in the future.

Notes to the Income Statement (Continued)

In the previous-year period, restructuring costs of €80 million relate, among other things, to measures for the migration of various trading systems to a central trading system. The historically grown structure of HVB Group's trading systems is to be made considerably easier by transferring the activities concerned to one trading platform. Furthermore, an amount of €46 million of the restructuring costs relates to payroll costs.

47 Net gains/losses on remeasurement of consolidated companies

€ millions	2023	2022
Shares in affiliates	(2)	(4)
Disposal of companies accounted for using the equity method	—	—
Net gains/(losses) on companies accounted for using the equity method	5	2
Total	**3**	**(2)**

In the reporting year and in the previous year, losses on shares in affiliates are primarily due to the losses generated on the deconsolidation of subsidiaries. In the reporting year and in the previous year, the net gains or losses on remeasurement of companies accounted for using the equity method is mainly attributable to Comtrade Group B.V., Rotterdam.

48 Income tax for the period

€ millions	2023	2022
Total current taxes	(377)	(660)
Tax expense/income (+) for the current year	(665)	(680)
Current tax expense/income (+) relating to other periods	288	20
Deferred taxes	(27)	193
Total	**(404)**	**(467)**

The deferred tax expense in the reporting year contains income totalling €2 million from value adjustments made to deferred tax assets on tax losses carried forward and temporary differences. The offsetting deferred expense totalling €29 million has resulted overall from the emergence and reversal of temporary differences and the use of tax losses. Within this total, there is a tax expense of €6 million due to a revaluation of deferred tax assets and liabilities on account of group-internal transactions.

The differences between computed and recognised income tax are shown in the following reconciliation.

€ millions	**2023**	**2022**
Profit before tax	2,139	1,768
Applicable tax rate	31.8%	31.8%
Computed income taxes	(679)	(562)
Tax effects		
from previous years and changes in tax rates	330	(3)
from foreign income	25	22
from non-taxable income	52	73
from different tax laws	(39)	(28)
from non-deductible expenses	(74)	(110)
from value adjustments and the non-recognition of deferred taxes	(10)	141
from amortisation of goodwill	—	—
from other differences	(9)	—
Recognised income taxes	**(404)**	**(467)**

An applicable tax rate of 31.76% (previous-year period: 31.76%) has been taken as a basis in the tax reconciliation. This comprises the current rate of corporate income tax in Germany of 15.0%, the solidarity surcharge of 5.5% and an average trade tax rate of 15.93% (previous-year period: 15.93%). This reflects the fact that the consolidated profit is significantly affected by profits generated in Germany, meaning that it is subject to German corporate income tax and trade tax.

The item “Tax effects from previous years and changes in tax rates” includes, among other things, total income relating to current taxes in the reporting year of €288 million (previous-year period: €20 million), mainly on account of the revaluation of tax risks.

The item “from non-taxable income” also includes the effects on the distribution for additional equity instruments (please see the “Accounting and Valuation” section for further details).

Tax effects from foreign income are mainly due to different tax rates applicable in other countries.

The item “Tax effects from different tax laws” comprises trade tax modifications applicable to domestic companies and other local features.

The item “from other differences” essentially comprises current tax on the gain on the transfer of a property, the changes in value of which were recognised in previous years and in the current year without affecting profit or loss.

Notes to the Income Statement (Continued)

The deferred tax assets and deferred tax liabilities are allocated to the following items:

€ millions	2023	2022
Deferred tax assets		
Other financial instruments at FVTPL	1	31
Other financial instruments Credit Risk (recycled at equity)	15	17
Financial instruments at FVTOCI	6	4
Loans and receivables with banks (at cost) and customers (at cost)/Deposits from banks/customers	273	262
Hedging derivatives and hedge adjustment of hedged items (P&L)	433	474
Hedging derivatives and hedge adjustment of hedged items (OCI)	1	2
Property, plant and equipment/intangible assets	101	292
Other assets/other liabilities	163	106
Provisions, pension fund and similar (P&L)	152	117
Pensions fund (OCI)	524	470
Losses carried forward/tax credits	4	9
Other	1	2
Total deferred tax assets	**1,674**	**1,786**
Offsetting effect	(1,001)	(941)
Recognised deferred tax assets	**673**	**845**
Deferred tax liabilities		
Other financial instruments at FVTPL	60	75
Financial instruments at FVTOCI	2	10
Loans and receivables with banks (at cost) and customers (at cost)/Deposits from banks/customers	102	150
Hedging derivatives and hedge adjustment of hedged items (P&L)	368	368
Hedging derivatives and hedge adjustment of hedged items (OCI)	—	3
Property, plant and equipment/intangible assets (P&L)	62	32
Property, plant and equipment/intangible assets (OCI)	373	464
Other assets/other liabilities	91	172
Other (P&L)	34	53
Other (OCI)	1	1
Total deferred tax liabilities	**1,093**	**1,328**
Offsetting effect	(1,001)	(941)
Recognised deferred tax liabilities	**92**	**387**

Deferred taxes are normally measured using the local tax rates of the respective tax jurisdiction. Our domestic companies measure deferred taxes using the uniform corporate income tax rate that is not dependent on any dividend distribution including the solidarity surcharge of 15.8% and the trade tax rate that depends on the applicable assessment rate. This resulted in an unchanged overall valuation rate for deferred taxes of 31.76% for HVB in Germany compared with the previous year. The applicable tax rate was applied analogously for other domestic and foreign units. Changes in tax rates have been taken into account, provided they had already been enacted at the reporting date.

For the 2022 financial year, deferred taxes were adjusted for a group of companies as a result of the reversal of IFRS 5. Due to the retrospective change, the amount of deferred tax liabilities attributable to the balance sheet item “Other assets/liabilities” increased by €23 million in the previous year.

The year-on-year change in deferred tax liabilities/assets without affecting profit or loss can be seen in the table above.

Compliant with IAS 12, no deferred tax assets were recognised for further corporate tax losses carried forward of HVB Group amounting to €537 million (previous-year period: €500 million), most of which can be utilised indefinitely, and trade tax losses carried forward amounting to €475 million (previous year period: €528 million), as well as for deductible temporary differences of €0.2 million (previous-year period: €0.1 million).

Deferred tax assets were calculated using plans of the individual business areas, which are based on segment-specific and general macroeconomic assumptions. For the adjustment of the planning horizon, please refer to the Accounting and Valuation section on impairment. Measurement was carried out taking into account possible timing restrictions imposed by local regulations and any rules on minimum taxation for tax losses carried forward. Uncertainty is inherent in making the assumptions used in any multi-year plan. Where changes are made to the multi-year plan over time, this may have an impact on the measurement of the volume of deferred taxes already capitalised or to be capitalised.

The changes to IAS 12 “Income Taxes – Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued on 7 May 2021 / adopted into European law on 11 August 2022) subject to mandatory adoption for the first time for financial years beginning on or after 1 January 2023 have no effect as HVB Group’s previous accounting method is already consistent with the new mandatory procedure.

Notes to the Balance Sheet

49 Cash and cash balances

€ millions	2023	2022
Cash on hand	428	489
Balances with central banks	22,865	36,344
Total	**23,293**	**36,833**

50 Financial assets held for trading

€ millions	2023	2022
On-balance sheet financial instruments	22,696	21,376
Fixed-income securities	6,288	6,826
Equity instruments	7,306	5,107
Other financial assets held for trading	9,102	9,443
Positive fair values of derivative financial instruments	45,915	60,882
Total	**68,611**	**82,258**
of which subordinated assets	2	—

Financial assets held for trading include in particular securities held for trading purposes and the positive fair values of derivatives other than hedging derivatives that are disclosed in hedge accounting (shown separately in the balance sheet). Provided they are held for trading purposes, other financial instruments such as receivables from repurchase transactions, promissory notes and registered bonds are also reported under other financial assets held for trading within financial assets held for trading.

Financial assets held for trading of related parties

The item "Financial assets held for trading" includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	20,630	26,777
of which:		
UniCredit S.p.A.	15,904	20,849
sister companies[1]	4,726	5,928
Joint ventures	—	—
Associates	58	40
Other investees	—	—
Total	**20,688**	**26,817**

1 Mostly derivative transactions involving UniCredit Bank Austria AG.

51 Financial assets at FVTPL

€ millions	2023	2022
Fixed-income securities	1,633	3,417
Equity instruments	673	635
Loans and promissory notes	825	1,004
Other	84	94
Total	**3,215**	**5,150**
of which:		
subordinated loans and receivables	3	5
past-due loans and receivables	—	—

52 Financial assets at FVTOCI

Financial assets at FVTOCI total €9,252 million as at the reporting date (previous year: €9,837 million).

Changes in carrying amounts

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance as at 1/1/2023	**9,824**	**13**	**—**	**—**	**9,837**
Transfers to another stage due to deterioration in credit quality	(327)	327	—	—	—
Transfers to another stage due to improvement in credit quality	13	(13)	—	—	—
Changes due to modification not leading to derecognition	—	—	—	—	—
Changes within the stage (net)[1]	(692)	107	—	—	(585)
Derecognition (due to uncollectibility)	—	—	—	—	—
Other changes	—	—	—	—	—
Balance as at 31/12/2023	**8,818**	**434**	**—**	**—**	**9,252**
Balance as at 1/1/2022	**11,956**	**50**	**—**	**—**	**12,006**
Transfers to another stage due to deterioration in credit quality	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	—	—	—	—	—
Changes due to modification not leading to derecognition	—	—	—	—	—
Changes within the stage (net)[1]	(2,132)	(37)	—	—	(2,169)
Derecognition (due to uncollectibility)	—	—	—	—	—
Other changes	—	—	—	—	—
Balance as at 31/12/2022	**9,824**	**13**	**—**	**—**	**9,837**

1 Changes within the stage (net) include additions from purchases and disposals from sales and repayments.

Notes to the Balance Sheet (Continued)

Fixed-income securities and collateral, broken down by rating class

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
31/12/2023					
Not rated	—	—	—	—	—
Rating class 1-4	8,818	434	—	—	9,252
Rating class 5-8	—	—	—	—	—
Rating class 9-10	—	—	—	—	—
Fair value as at 31/12/2023	**8,818**	**434**	**—**	**—**	**9,252**
Impairment recognised in other comprehensive income for these instruments	—	—	—	—	—
31/12/2022					
Not rated	33	—	—	—	33
Rating class 1-4	9,791	—	—	—	9,791
Rating class 5-8	—	13	—	—	13
Rating class 9-10	—	—	—	—	—
Fair value as at 31/12/2022	**9,824**	**13**	**—**	**—**	**9,837**
Impairment recognised in other comprehensive income for these instruments	—	1	—	—	1

The impairment of securities holdings totals €0 million (previous year: €1 million). The impairment decreased by €1 million (previous year: €3 million).

As in the previous year, no modifications were made to fixed-income securities in the reporting period.

No collateral was provided for assets held at FVTOCI in the reporting period or in the previous year.

53 Loans and receivables with banks (at cost)

€ millions	2023	2022
Current accounts	907	1,796
Cash collateral and pledged credit balances	3,896	5,596
Reverse repos	7,165	9,363
Securities	6,122	3,873
Other loans to banks	1,442	2,672
Non-performing loans and receivables	34	39
Total	**19,566**	**23,339**
of which subordinated assets	—	—

Changes in gross carrying amounts

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance as at 1/1/2023	**23,229**	**107**	**28**	**33**	**23,397**
Addition due to new business	11,144	—	—	—	11,144
Change in carrying amount within the stage	(2,704)	(31)	1	—	(2,734)
Transfers to another stage due to deterioration in credit quality	(230)	177	53	—	—
from Stage 1 to Stage 2	(224)	224	—	—	—
from Stage 2 to Stage 3	—	(47)	47	—	—
from Stage 1 to Stage 3	(6)	—	6	—	—
Transfers to another stage due to improvement in credit quality	2	(2)	—	—	—
from Stage 2 to Stage 1	2	(2)	—	—	—
from Stage 3 to Stage 2	—	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—	—
Increase reported directly in equity in gross carrying amounts for interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals due to repayments/sales	(12,073)	(63)	(1)	—	(12,137)
Disposals due to write-offs/write downs of loans and receivables	—	—	—	—	—
Foreign currency movements and other changes	(24)	—	—	—	(24)
Balance as at 31/12/2023	**19,344**	**188**	**81**	**33**	**19,646**
Balance as at 1/1/2022	**24,523**	**104**	**1**	**—**	**24,628**
Addition due to new business	13,397	—	—	33	13,430
Change in carrying amount within the stage	2,219	46	—	—	2,265
Transfers to another stage due to deterioration in credit quality	(160)	133	27	—	—
from Stage 1 to Stage 2	(133)	133	—	—	—
from Stage 2 to Stage 3	—	—	—	—	—
from Stage 1 to Stage 3	(27)	—	27	—	—
Transfers to another stage due to improvement in credit quality	141	(141)	—	—	—
from Stage 2 to Stage 1	141	(141)	—	—	—
from Stage 3 to Stage 2	—	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—	—
Increase reported directly in equity in gross carrying amounts for interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals due to repayments/sales	(16,922)	(53)	—	—	(16,975)
Disposals due to write-offs/write downs of loans and receivables	—	—	—	—	—
Foreign currency movements and other changes	31	18	—	—	49
Balance as at 31/12/2022	**23,229**	**107**	**28**	**33**	**23,397**

Notes to the Balance Sheet (Continued)

Changes in allowances

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance as at 1/1/2023	**2**	**34**	**13**	**9**	**58**
Addition due to new business	—	—	—	—	—
Change in carrying amount within the same stage	1	(7)	22	15	31
Transfers to another stage due to deterioration in credit quality	(2)	(23)	22	—	(3)
from Stage 1 to Stage 2	(2)	1	—	—	(1)
from Stage 2 to Stage 3	—	(24)	22	—	(2)
from Stage 1 to Stage 3	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	—	—	—	—	—
from Stage 2 to Stage 1	—	—	—	—	—
from Stage 3 to Stage 2	—	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—	—
Increase in impairment reported directly in equity for interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivable)	(1)	(3)	—	—	(4)
Disposals (utilisation of impairments)	—	—	—	—	—
Reversal of the discounted amount and recognition of interest claims not previously recognised in profit or loss	—	—	—	—	—
Foreign currency movements and other changes	—	(1)	(1)	—	(2)
Balance as at 31/12/2023	**—**	**—**	**56**	**24**	**80**
Balance as at 1/1/2022	**4**	**1**	**1**	**—**	**6**
Addition due to new business	1	—	—	—	1
Change in carrying amount within the same stage	1	10	12	9	32
Transfers to another stage due to deterioration in credit quality	—	24	—	—	24
from Stage 1 to Stage 2	—	24	—	—	24
from Stage 2 to Stage 3	—	—	—	—	—
from Stage 1 to Stage 3	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	—	—	—	—	—
from Stage 2 to Stage 1	—	—	—	—	—
from Stage 3 to Stage 2	—	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—	—
Increase in impairment reported directly in equity for interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivable)	—	—	—	—	—
Disposals (utilisation of impairments)	(4)	(1)	—	—	(5)
Reversal of the discounted amount and recognition of interest claims not previously recognised in profit or loss	—	—	—	—	—
Foreign currency movements and other changes	—	—	—	—	—
Balance as at 31/12/2022	**2**	**34**	**13**	**9**	**58**

In the 2023 financial year, total portfolio valuation allowances (Stage 1 and Stage 2) fell by €36 million. The reversal is largely driven by a bank that migrated from Stage 2 to Stage 3. In such cases, the existing general loan loss provisions are reversed and specific loan loss provisions are added at the full amount for the first time. Reductions in exposure for banks headquartered in Russia resulted in further reversals.

The increase in specific loan loss allowances at Stage 3 in the reporting period is primarily to be seen against the backdrop of a bank's migration to Stage 3. In addition, derivatives with Russian banks were prematurely terminated in the previous-year period in view of the sanctions imposed and the final receivables remaining from the termination of the derivatives were recognised at their fair value. As the banks in question are to be considered in part as having defaulted at the time when the derivatives were terminated, the receivables were classified as POCI, which increased in 2023 due to the deterioration in the assessment of the receivables' recoverability.

Breakdown by rating class

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	COLLA-TERAL	TOTAL
31/12/2023						
Not rated	1,468	—	—	—	10	1,468
Rating class 1-4	17,095	143	—	—	6,794	17,238
Rating class 5-8	781	45	—	—	377	826
Rating class 9-10	—	—	81	33	1	114
Gross carrying amount as at 31/12/2023	**19,344**	**188**	**81**	**33**	**7,182**	**19,646**
Impairment	—	—	(56)	(24)	—	(80)
Net carrying amount as at 31/12/2023	**19,344**	**188**	**25**	**9**	**7,182**	**19,566**
31/12/2022						
Not rated	477	—	—	—	11	477
Rating class 1-4	22,218	5	—	—	9,365	22,223
Rating class 5-8	534	102	—	—	35	636
Rating class 9-10	—	—	28	33	—	61
Gross carrying amount as at 31/12/2022	**23,229**	**107**	**28**	**33**	**9,411**	**23,397**
Impairment	(2)	(34)	(13)	(9)	—	(58)
Net carrying amount as at 31/12/2022	**23,227**	**73**	**15**	**24**	**9,411**	**23,339**

There were no assets written off in the reporting period that are subject to an enforcement measure.

Loans and receivables with related parties

The item "Loans and receivables with banks (at cost)" includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	845	3,415
of which:		
UniCredit S.p.A.	789	3,334
sister companies[1]	56	81
Joint ventures	—	—
Associates	77	1
Other investees	47	10
Total	**969**	**3,426**

1 Mainly due from UniCredit Bank Austria AG.

Notes to the Balance Sheet (Continued)

54 Loans and receivables with customers (at cost)

€ millions	2023	2022
Current accounts	7,604	7,841
Cash collateral and pledged cash balances	2,420	3,360
Reverse repos	1,010	1,172
Mortgage loans	54,015	52,925
Finance lease receivables	388	648
Securities	29,099	24,606
Other loans and receivables	58,204	62,619
Non-performing loans and receivables	1,737	1,704
Total	**154,477**	**154,875**
of which subordinated assets	—	—

Other loans and receivables largely comprise miscellaneous other loans, instalment loans, term deposits and refinanced special credit facilities.

The item “Loans and receivables with customers (at cost)” includes an amount of €4,738 million (previous year: €5,049 million) funded under the fully consolidated Arabella conduit programme. This mainly involves buying short-term trade receivables and medium-term receivables under lease agreements from customers and funding them by issuing commercial paper on the capital market. The securitised loans and receivables essentially reflect loans and receivables of European borrowers.

Changes in gross carrying amounts

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance as at 1/1/2023	**136,190**	**17,774**	**2,725**	**4**	**156,693**
Addition due to new business	27,217	—	—	—	27,217
Change in carrying amount within the stage	(447)	102	(198)	—	(543)
Transfers to another stage due to deterioration in credit quality	(11,758)	10,652	1,106	—	—
from Stage 1 to Stage 2	(11,270)	11,270	—	—	—
from Stage 2 to Stage 3	—	(618)	618	—	—
from Stage 1 to Stage 3	(488)	—	488	—	—
Transfers to another stage due to improvement in credit quality	4,661	(4,542)	(119)	—	—
from Stage 2 to Stage 1	4,623	(4,623)	—	—	—
from Stage 3 to Stage 2	—	81	(81)	—	—
from Stage 3 to Stage 1	38	—	(38)	—	—
Increase reported directly in equity in gross carrying amounts for interest claims not recognised in profit or loss	—	—	153	—	153
Changes due to modification of assets not leading to derecognition	—	2	8	—	10
Disposals due to repayments/sales	(22,862)	(3,184)	(612)	—	(26,658)
Disposals due to write-offs/write downs of loans and receivables	—	—	(220)	—	(220)
Foreign currency movements and other changes	(335)	(9)	(12)	—	(356)
Balance as at 31/12/2023	**132,666**	**20,795**	**2,831**	**4**	**156,296**
Balance as at 1/1/2022	**125,190**	**22,249**	**3,072**	**4**	**150,515**
Addition due to new business	39,730	2,851	287	1	42,869
Change in carrying amount within the stage	(6,001)	(1,511)	(106)	(1)	(7,619)
Transfers to another stage due to deterioration in credit quality	(9,494)	8,822	672	—	—
from Stage 1 to Stage 2	(9,127)	9,127	—	—	—
from Stage 2 to Stage 3	—	(305)	305	—	—
from Stage 1 to Stage 3	(367)	—	367	—	—
Transfers to another stage due to improvement in credit quality	11,208	(11,025)	(183)	—	—
from Stage 2 to Stage 1	11,186	(11,186)	—	—	—
from Stage 3 to Stage 2	—	161	(161)	—	—
from Stage 3 to Stage 1	22	—	(22)	—	—
Increase reported directly in equity in gross carrying amounts for interest claims not recognised in profit or loss	—	—	129	—	129
Changes due to modification of assets not leading to derecognition	—	(4)	8	—	4
Disposals due to repayments/sales	(24,264)	(3,767)	(864)	—	(28,895)
Disposals due to write-offs/write downs of loans and receivables	—	—	(316)	—	(316)
Foreign currency movements and other changes	(179)	159	26	—	6
Balance as at 31/12/2022	**136,190**	**17,774**	**2,725**	**4**	**156,693**

Notes to the Balance Sheet (Continued)

Changes in allowances

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance as at 1/1/2023	**201**	**591**	**1,024**	**2**	**1,818**
Addition due to new business	34	—	—	—	34
Change in carrying amount within the same stage	14	(109)	119	—	24
Transfers to another stage due to deterioration in credit quality	(112)	248	310	—	446
from Stage 1 to Stage 2	(108)	311	—	—	203
from Stage 2 to Stage 3	—	(63)	267	—	204
from Stage 1 to Stage 3	(4)	—	43	—	39
Transfers to another stage due to improvement in credit quality	27	(72)	(38)	—	(83)
from Stage 2 to Stage 1	27	(81)	—	—	(54)
from Stage 3 to Stage 2	—	9	(35)	—	(26)
from Stage 3 to Stage 1	—	—	(3)	—	(3)
Increase in impairment reported directly in equity for interest claims not recognised in profit or loss	—	—	153	—	153
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivables)	(6)	(95)	(201)	—	(302)
Disposals (utilisation of impairments)	—	—	(211)	—	(211)
Reversal of the discounted amount and recognition of interest claims not previously recognised in profit or loss	—	—	(61)	—	(61)
Foreign currency movements and other changes	—	—	1	—	1
Balance as at 31/12/2023	**158**	**563**	**1,096**	**2**	**1,819**
Balance as at 1/1/2022	**232**	**329**	**1,245**	**—**	**1,806**
Addition due to new business	77	—	—	—	77
Change in carrying amount within the same stage	19	211	204	2	436
Transfers to another stage due to deterioration in credit quality	(54)	207	184	—	337
from Stage 1 to Stage 2	(53)	221	—	—	168
from Stage 2 to Stage 3	—	(14)	141	—	127
from Stage 1 to Stage 3	(1)	—	43	—	42
Transfers to another stage due to improvement in credit quality	25	(111)	(13)	—	(99)
from Stage 2 to Stage 1	24	(114)	—	—	(90)
from Stage 3 to Stage 2	—	3	(1)	—	2
from Stage 3 to Stage 1	1	—	(12)	—	(11)
Increase in impairment reported directly in equity for interest claims not recognised in profit or loss	—	—	129	—	129
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivables)	(98)	(44)	(262)	—	(404)
Disposals (utilisation of impairments)	—	—	(342)	—	(342)
Reversal of the discounted amount and recognition of interest claims not previously recognised in profit or loss	—	—	(43)	—	(43)
Foreign currency movements and other changes	—	(1)	(78)	—	(79)
Balance as at 31/12/2022	**201**	**591**	**1,024**	**2**	**1,818**

In the 2023 financial year, total portfolio valuation allowances (Stage 1 and Stage 2) for loans and receivables with customers decreased by €71 million.

On the one hand, post model adjustments led to a reversal of portfolio valuation allowances. In 2022, HVB made post model adjustments particularly for extraordinary effects for energy-intensive industries and certain individual customers that are not fully captured by the expected loss models. In the 2023 financial year, these post model adjustments decreased largely on account of a reduction in the geopolitical overlay.

The update of macroeconomic expectations led to an increase in portfolio valuation allowances. HVB now expects growth rates for major economies to turn out lower in 2024 and 2025 than expected at year-end 2022. Therefore, for example, the growth rates for annual real GDP in the baseline scenario for Germany have been adjusted to 0.4% for 2024, to 1.4% for 2025 and to 1.5% for 2026 (assumptions as at 31 December 2022: 1.6% for 2024 and 1.6% for 2025). The weighting of the macroeconomic scenarios remained unchanged at 60% for the baseline scenario, at 40% for the negative scenario and at 0% for the positive scenario.

In the reporting period, there was a net increase in specific valuation allowances of €72 million. Additions to specific valuation allowances on account of defaults were only partially compensated for by reversals of existing specific valuation allowances.

Breakdown by rating class

€ millions	STAGE 1	STAGE 2	STAGE 3	POCI	COLLA TERAL	TOTAL
31/12/2023						
Not rated	2,897	—	—	—	1,159	2,897
Rating class 1-4	114,793	8,990	—	—	41,453	123,783
Rating class 5-8	14,976	11,805	—	1	12,773	26,782
Rating class 9-10	—	—	2,831	3	779	2,834
Gross carrying amount as at 31/12/2023	**132,666**	**20,795**	**2,831**	**4**	**56,164**	**156,296**
Impairment	(158)	(563)	(1,096)	(2)	—	(1,819)
Net carrying amount as at 31/12/2023	**132,508**	**20,232**	**1,735**	**2**	**56,164**	**154,477**
31/12/2022						
Not rated	3,538	19	—	—	1,032	3,557
Rating class 1-4	110,650	7,452	—	—	37,730	118,102
Rating class 5-8	22,002	10,303	—	1	16,666	32,306
Rating class 9-10	—	—	2,725	3	773	2,728
Gross carrying amount as at 31/12/2022	**136,190**	**17,774**	**2,725**	**4**	**56,201**	**156,693**
Impairment	(201)	(591)	(1,024)	(2)	—	(1,818)
Net carrying amount as at 31/12/2022	**135,989**	**17,183**	**1,701**	**2**	**56,201**	**154,875**

The amount outstanding from assets written off in the reporting period that are subject to an enforcement measure totals €153 million (previous year: €157 million).

Notes to the Balance Sheet (Continued)

Loans and receivables with related parties

The item "Loans and receivables with customers (at cost)" includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	34	84
of which:		
sister companies	30	72
subsidiaries	4	12
Joint ventures	—	—
Associates	—	—
Other investees	320	344
Total	**354**	**428**

55 Forbearance

The European Banking Authority (EBA) defines forborne exposures as debt contracts for which forbearance measures have been extended. Forbearance measures consist of concessions towards a debtor facing or about to face difficulties in meeting its financial commitments that the lender would not have been prepared to grant under other circumstances. Possible measures range from deferrals and temporary moratoriums, longer periods allowed for repayment, reduced interest rates and rescheduling, and even a partial debt waiver. It should be noted, however, that not every modification of a lending agreement is due to financial difficulties on the part of the borrower and represents forbearance.

Forborne exposures may be classified as performing or non-performing under the EBA definition. The non-performing portfolio encompasses exposures for which the counterparty is listed at Stage 3 and exposures that do not yet satisfy the EBA's strict criteria for returning to the performing portfolio. The following table shows the breakdown of the forborne exposure portfolio at the reporting date:

	2023			2022		
€ millions	CARRYING AMOUNT BEFORE ALLOWANCES	ALLOWANCES	CARRYING AMOUNT	CARRYING AMOUNT BEFORE ALLOWANCES	ALLOWANCES	CARRYING AMOUNT
Performing exposures	173	(17)	156	510	(31)	479
Non-performing exposures	850	(240)	610	1,110	(296)	814
Total	**1,023**	**(257)**	**766**	**1,620**	**(327)**	**1,293**

The exposures considered to be forborne are included under loans and receivables with customers at an amount of €766 million (previous year: €1,290 million) and under non-current assets or disposal groups held for sale at an amount of €– million (previous year: €3 million). As in the previous year, no securities were held with forbearance measures.

If the forbearance measure does not result in a deterioration in creditworthiness (Stage 3), the loans involved are exposed to increased default risk as they have already become conspicuous. They are thus allocated to Stage 2. Such exposures are closely tracked by the restructuring units or subject to strict monitoring by the back-office units.

56 Hedging derivatives

€ millions	2023	2022
Micro fair value hedge	283	401
Portfolio fair value hedge[1]	126	235
Total	**409**	**636**

1 The cross-currency interest rate swaps used in hedge accounting are carried at their aggregate fair value in the portfolio fair value hedge.

57 Investments in associates and joint ventures accounted for using the equity method

€ millions	2023	2022
Associates accounted for using the equity method	17	13
of which goodwill	—	—
Joint ventures accounted for using the equity method	—	—
Total	**17**	**13**

For materiality reasons, two associates accounted for using the equity method were not included in the consolidated financial statements.

There were no effects from changes in the value of other comprehensive income or other equity items at companies accounted for using the equity method in the reporting year or in the previous year. Nor was there any unrecognised prorated loss from companies accounted for using the equity method in the reporting year or in the previous year. Furthermore, there were no unrecognised prorated cumulative losses from companies accounted for using the equity method in the reporting year or in the previous year.

There are no material commitments arising from contingent liabilities of associates.

58 Property, plant and equipment

€ millions	2023	2022
Land	1,103	1,200
Buildings	688	876
Plant and office equipment	121	130
Right-of-use assets (leases)	138	163
of which land and buildings	130	156
Total	**2,050**	**2,369**

Impairments on land and buildings shown under changes in property, plant and equipment for 2023 are attributable to declines in the fair value of land and buildings. For properties, these amount to €85 million (previous year: €15 million) and for land €1 million (previous year: €– million). The declines in fair value are due to the current market trend in general. As a result of the significant increases in interest rates and the related higher capital costs, there was a considerable slump in volumes of property transactions in recent months, which saw the price expectations of buyers and sellers diverge further. This effect is reinforced by the substantial increase in construction costs which, in turn, additionally complicate the starting position for investors in new buildings and modernisation measures in existing buildings.

Notes to the Balance Sheet (Continued)

Changes in property, plant and equipment

€ millions	LAND	BUILDINGS	PLANT AND OFFICE EQUIPMENT	RIGHT-OF-USE ASSETS (LEASES)	TOTAL PROPERTY, PLANT AND EQUIPMENT
Acquisition costs as at 1/1/2023	**1,200**	**2,483**	**693**	**363**	**4,739**
Write-downs and write-ups from previous years	—	(1,607)	(563)	(200)	(2,370)
Carrying amounts as at 1/1/2023	**1,200**	**876**	**130**	**163**	**2,369**
Additions					—
Acquisition/production costs	—	13	22	24	59
Adjustment due to revaluation in reporting period (OCI)	16	24	—	—	40
Write-ups	—	37	2	10	49
Changes from currency translation	—	—	—	—	—
Other additions[1]	1	4	3	24	32
Disposals					—
Sales	(1)	—	(3)	(17)	(21)
Adjustment due to revaluation in reporting period (OCI)	(110)	(145)	—	—	(255)
Depreciation and write-downs	—	(30)	(26)	(40)	(96)
Impairments	(1)	(85)	(5)	(9)	(100)
Changes from currency translation	—	—	—	(1)	(1)
Non-current assets or disposal groups held for sale	(2)	(2)	—	—	(4)
Other disposals[1]	—	(4)	(2)	(16)	(22)
Carrying amounts as at 31/12/2023	**1,103**	**688**	**121**	**138**	**2,050**
Write-downs and write-ups from previous years plus the reporting period	—	1,682	462	202	2,346
Acquisition costs as at 31/12/2023	**1,103**	**2,370**	**583**	**340**	**4,396**
Acquisition costs as at 1/1/2022	**1,148**	**2,528**	**743**	**348**	**4,767**
Write-downs and write-ups from previous years	—	(1,623)	(529)	(165)	(2,317)
Carrying amounts as at 1/1/2022	**1,148**	**905**	**214**	**183**	**2,450**
Additions					
Acquisition/production costs	—	19	16	21	56
Adjustment due to revaluation in reporting period (OCI)	59	27	—	—	86
Write-ups	—	20	4	15	39
Changes from currency translation	—	—	—	2	2
Other additions[1]	—	3	7	9	19
Disposals					
Sales	—	(3)	(66)	(2)	(71)
Adjustment due to revaluation in reporting period (OCI)	(7)	(37)	—	—	(44)
Depreciation and write-downs	—	(32)	(30)	(51)	(113)
Impairments	—	(15)	(7)	(12)	(34)
Changes from currency translation	—	—	—	(1)	(1)
Non-current assets or disposal groups held for sale	—	—	—	—	—
Other disposals[1]	—	(11)	(8)	(1)	(20)
Carrying amounts as at 31/12/2022	**1,200**	**876**	**130**	**163**	**2,369**
Write-downs and write-ups from previous years plus the reporting period	—	1,607	563	200	2,370
Acquisition costs as at 31/12/2022	**1,200**	**2,483**	**693**	**363**	**4,739**

1 Including changes in the group of companies included in consolidation.

59 Investment properties

Investment properties are measured at fair value. As each property is unique and the fair value is determined by external expert opinions that take into account the special features of the property being valued, all fair values for investment properties reported in this balance sheet item are allocated to Level 3.

The net carrying amount of right-of-use assets from lease agreements classified as investment properties under this balance sheet item is €52 million as at the reporting date (previous year: €63 million).

Changes in investment properties

€ millions	2023	2022
Carrying amounts as at 1/1	**351**	**383**
Additions		
Acquisitions	—	—
Valuation gains	22	13
Subsequent expenses	4	—
Changes from currency translation	—	—
Other additions[1]	—	—
Disposals		
Sales	—	—
Valuation losses	(91)	(16)
Changes from currency translation	—	—
Non-current assets or disposal groups held for sale	(32)	(29)
Other disposals[1]	—	—
Carrying amounts as at 31/12	**254**	**351**

1 Also including changes in the group of companies included in consolidation.

60 Intangible assets

€ millions	2023	2022
Internally generated intangible assets	2	5
Other intangible assets	4	6
Total	**6**	**11**

HVB no longer generates any software internally. Software is provided to HVB by the UniCredit group-wide service provider UniCredit S.p.A.

Notes to the Balance Sheet (Continued)

61 Non-current assets or disposal groups held for sale

€ millions	2023	2022
Cash and cash balances	—	—
Financial assets at FVTPL	—	—
Financial assets at FVTOCI	—	—
Loans and receivables with banks (at cost)	14	—
Loans and receivables with customers (at cost)	17	13
Investments in associates and joint ventures accounted for using the equity method	—	—
Property, plant and equipment	4	—
Investment properties	32	—
Intangible assets	—	—
Tax assets	—	—
Inventories (IAS 2)	—	—
Other assets	—	—
Total	**67**	**13**

As at 31 December 2023, non-current assets or disposal groups held for sale include the following selling activities:
– Planned sale of the subsidiary Structured Invest Société Anonyme, Luxembourg, allocated to the Corporates operating segment. The closing of the sale is expected in the first half of 2024.
– Planned sale of a plot of land and building (property, plant and equipment). The closing of the sale is expected in the first half of 2024.
– Planned sale of one non-strategic property (investment property, allocated to Level 2). The closing of the sale is expected in the first half of 2024.

The planned sale of the subsidiary Structured Invest Société Anonyme, Luxembourg, mainly relates to the assets loans and receivables with banks (at cost) and loans and receivables with customers (at cost).

In the first half of 2023, the sale of a portfolio of non-performing customer receivables was closed that was classified as non-current assets or disposal groups held for sale for the first time as at 31 December 2022 and was reported at an amount of €13 million under loans and receivables from customers in the previous year.

In the fourth quarter of 2023, HVB decided to end the sales process for the subsidiary Wealth Management Capital Holding GmbH, Munich with its subsidiaries. For details about the ending of the sales process, please refer to the Accounting and Valuation section – Wealth Management Capital Holding GmbH.

Furthermore, the sales process for Comtrade Group B.V., Rotterdam, a company accounted for using the equity method, was ended in the second half of 2023. This company was classified as non-current assets or disposal groups held for sale for the first time in the first half of 2023. Compliant with IAS 28.21 and IFRS 5.28 requirements for the sales process of investments in associates, reclassification was carried out retrospectively and the investment was accounted for retrospectively for 2023 using the equity method. The carrying amount as at 31 December 2023 in the amount of €17 million is shown under investments in associates and joint ventures accounted for using the equity method.

No impairments were required to be recognised for non-current assets or disposal groups held for sale in the reporting year or in the previous year.

Changes in investment properties, classified as non-current assets or disposal groups held for sale

€ millions	**2023**	**2022**
Carrying amounts as at 1/1	**—**	**8**
Additions		
Acquisitions	—	—
Classification of non-current assets or disposal groups held for sale	32	29
Valuation gains	—	—
Subsequent expenses	—	—
Changes from currency translation	—	—
Other additions[1]	—	—
Disposals		
Sales	—	(37)
Valuation losses	—	—
Changes from currency translation	—	—
Reclassification of non-current assets or disposal groups held for sale	—	—
Other disposals[1]	—	—
Carrying amounts as at 31/12	**32**	**—**

1 Also including changes in the group of companies included in consolidation.

Fair value level hierarchy

Assets or liabilities whose valuation is derived from input data (valuation parameters) that is directly observable (as prices) or indirectly observable (derived from prices) are generally shown in Level 2. A price cannot be observed on an active market for the assets or liabilities concerned themselves. Since properties are unique, there can be no trading for the same property or any observable price for it on an active market. However, offers submitted in the course of a selling process constitute observable input data for determining a fair value, as the property may be sold at this price on the basis of binding or reliable non-binding offers.

Level 3 generally relates to assets or liabilities whose fair value is not determined exclusively on the basis of observable market data (non-observable input data). External valuation reports are based on generally recognised valuation methods that use parameters determined by external assessors for the property (such as the current market rent assumed for the property). The respective fair values therefore feature valuation parameters that are based on model assumptions.

Notes to the Balance Sheet (Continued)

The following table shows the allocation of the investment properties measured at fair value to the respective fair value level hierarchy:

	FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2)		FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3)	
€ millions	**2023**	**2022**	**2023**	**2022**
Investment properties, classified as non-current assets or disposal groups held for sale	32	—	—	—

Changes in investment properties allocated to Level 3:

€ millions	**2023**	**2022**
Carrying amount as at 1/1	**—**	**—**
Additions to the portfolio (classified as Level 3)	—	—
Positive fair value changes (classified as Level 3)	—	—
Additions due to reclassification from Level 2 to Level 3	—	—
Disposals from the portfolio (classified as Level 3)	—	—
Negative fair value changes (classified as Level 3)	—	—
Disposals due to reclassification from Level 3 to Level 2	—	—
Carrying amount as at 31/12	**—**	**—**

There were no reclassifications from Level 2 to Level 3.

62 Other assets

Other assets include prepaid expenses of €141 million (previous year: €136 million). At the reporting date, the excess of assets over liabilities from offsetting the present value of the defined pension obligations against the fair value of the plan assets of defined benefit plans is also recognised under other assets as a capitalised excess of plan assets totalling €41 million (previous year: €178 million).

Other assets include commodities totalling €218 million that are measured at fair value less selling costs pursuant to IAS 2.3 (b).

63 Own securitisation

HVB has securitised its own loan receivables for the purpose of obtaining favourable funding terms on the capital market, for generating securities for use as collateral in repurchase agreements and for reducing risk-weighted assets.

This involves structuring the cash flows of the underlying loan portfolio, meaning that at least two hierarchical positions (tranches) are formed when dividing up the risks and cash flows. In the case of traditional securitisations (true sale), receivables are sold to a special purpose entity, which in turn issues securities. In contrast, in a synthetic transaction, the Bank always retains ownership of the securitised assets. Only the risk is transferred to the capital market without any change in the ownership structure of the securitised credit portfolio. This hedge is effected through guarantees or through the use of credit derivatives.

HVB’s true sale transactions consist of Rosenkavalier 2008 (€3.2 billion securitisation of retail real estate loans), Rosenkavalier 2015 (€3.8 billion securitisation of corporate loans), Rosenkavalier 2020 (€0.7 billion securitisation of KomfortKredit loans) and Rosenkavalier 2022 (€3.0 billion securitisation of corporate loans).

In all of the true sale transactions, HVB retained the tranches issued by the special purpose entities. The senior positions (or senior tranches) of securities generated in this way are available as collateral for repurchase agreements with the Bundesbank and as collateral for TLTRO III. The underlying receivables continue to be recognised by HVB and the special purpose entities set up for this purpose are fully consolidated in accordance with IFRS 10. These transactions did not result in any reduction in risk-weighted assets.

At the end of 2022, HVB and the EIB Group structured a synthetic securitisation. The EIB Group consists of the European Investment Bank (EIB) and the European Investment Fund (EIF). In response to the COVID-19 pandemic, new loans are being made available for SMEs through the Tucherpark 2022 transaction (€1.9 billion securitisation of corporate loans) within the framework of the European Guarantee Fund (EGF). EIF takes on financial guarantees that provide credit protection, which are hedged through an agreement of the EIB in favour of the EIF. For HVB, this results in a reduction in risk-weighted assets of €0.45 billion as at 31 December 2023.

A further synthetic securitisation was concluded with a volume of €1.9 billion at year-end. In the Arabellapark 2023 transaction, revolving credit and term loan facilities of large companies were securitised for the first time. HVB acted as the sole arranger for this transaction and placed credit-linked notes totalling €150 million in order to achieve a reduction in risk-weighted assets.

Notes to the Balance Sheet (Continued)

64 Deposits from banks

€ millions	2023	2022
Deposits from central banks	7,167	21,727
Deposits from banks	28,506	29,597
Current accounts	1,705	1,693
Cash collateral and pledged credit balances	8,513	8,417
Repos	2,764	2,957
Term deposits	870	1,700
Other liabilities	14,654	14,830
Total	**35,673**	**51,324**

Deposits from central banks include liabilities from the participation in the TLTRO III programme totalling €5.8 billion as at the reporting date (previous year: €22 billion). The decline is based on a partial repayment of the funds totalling €14.9 billion.

Amounts payable to related parties

The item "Deposits from banks" includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	3,564	4,226
of which:		
UniCredit S.p.A.	2,806	3,042
sister companies[1]	758	1,184
Joint ventures	—	—
Associates	165	126
Other investees	19	25
Total	**3,748**	**4,377**

1 Largest single items relate to UniCredit Bank Austria AG.

65 Deposits from customers

€ millions	2023	2022
Current accounts	76,197	92,602
Cash collateral and pledged credit balances	2,781	3,489
Savings deposits	5,709	10,706
Repos	1,089	224
Term deposits	48,253	35,529
Promissory notes	680	861
Lease liabilities	275	344
Other liabilities	4,573	3,667
Total	**139,557**	**147,422**

Amounts payable to related parties

The item “Deposits from customers” includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	16	22
of which:		
sister companies	2	4
subsidiaries	14	18
Joint ventures	—	—
Associates	—	—
Other investees	290	313
Total	**306**	**335**

Notes to the Balance Sheet (Continued)

66 Debt securities in issue

€ millions	2023	2022
Bonds	34,274	31,140
of which:		
registered Mortgage Pfandbriefe	3,098	3,426
registered Public-sector Pfandbriefe	1,056	1,164
Mortgage Pfandbriefe	18,255	17,017
Public-sector Pfandbriefe	2,265	1,253
registered bonds	1,945	2,116
Other securities	—	—
Total	**34,274**	**31,140**

Debt securities in issue, payable to related parties

The item “Debt securities in issue” includes the following amounts attributable to related parties:

€ millions	2023	2022
Non-consolidated affiliates	3,571	3,568
of which:		
UniCredit S.p.A.	3,571	3,568
sister companies	—	—
Joint ventures	—	—
Associates	—	—
Other investees	2	2
Total	**3,573**	**3,570**

67 Financial liabilities held for trading

€ millions	2023	2022
Negative fair values of derivative financial instruments	42,574	58,310
Other financial liabilities held for trading	5,963	5,994
Total	**48,537**	**64,304**

The negative fair values of derivative financial instruments are carried as financial liabilities held for trading. In addition, warrants, certificates and bonds issued by our Trading area as well as delivery obligations from short sales of securities, insofar as they serve trading purposes, are included here under other financial liabilities held for trading.

68 Financial liabilities at FVTPL

This item in the amount of €4,660 million (previous year: €4,818 million) primarily contains own structured issues.

The difference between the carrying amount and the amount payable under the contract amounts to minus €90 million (previous year: minus €267 million).

69 Hedging derivatives

€ millions	2023	2022
Micro fair value hedge	32	48
Portfolio fair value hedge[1]	71	152
Total	**103**	**200**

1 The cross-currency interest rate swaps used in hedge accounting are carried at their aggregate fair value in the portfolio fair value hedge.

70 Hedge adjustment of hedged items in the portfolio fair value hedge

The hedge adjustment of interest rate-hedged receivables and liabilities in the portfolio fair value hedge totals net minus €3,763 million (previous year: minus €5,474 million). The fair value of the netted portfolio fair value hedge derivatives represents a net comparable amount resulting from a countermovement. Based on the rules of IAS 39.89A in conjunction with IAS 39.AG123, the nature of the hedged item determines the allocation either to the asset side or to the liabilities side, which means that a positive hedge adjustment for hedged liabilities and an excess of liabilities over assets is to be reported in the respective maturity buckets of the portfolio fair value hedge as a negative figure on the liabilities side.

71 Liabilities of disposal groups held for sale

€ millions	2023	2022
Deposits from banks	—	—
Deposits from customers	—	—
Tax liabilities	2	—
Other liabilities	11	—
Provisions	—	—
Total	**13**	**—**

As at 31 December 2023, the liabilities of disposal groups held for sale relate exclusively to the liabilities of Structured Invest Société Anonyme, Luxembourg, which is allocated to the Corporates operating segment.

72 Other liabilities

€millions	2023	2022
Accrued expenses and deferred income for other interest	183	168
Short-term liabilities due to employees	304	278
Turnover tax liabilities	89	41
Liabilities to suppliers	81	59
Other liabilities	813	824
Total	**1,470**	**1,370**

Notes to the Balance Sheet (Continued)

73 Provisions

€ millions	2023	2022
Provisions for pensions and similar obligations	132	75
Provisions for financial guarantees and irrevocable credit commitments	284	330
Restructuring provisions	531	595
Other provisions	703	781
Payroll provisions	392	317
Provisions related to tax disputes (without income taxes)	42	116
Provisions for rental guarantees and dismantling obligations	73	105
Provisions for legal risks and similar risks	137	158
Other provisions	59	85
Total	**1,650**	**1,781**

Expected credit losses for financial guarantees and unutilised irrevocable credit commitments are recognised under provisions for financial guarantees and irrevocable credit commitments. The term of these provisions is short to long term in line with the term of the underlying guarantees and credit commitments. For uncertainties in making estimates, please refer to the description of credit risk in the Risk Report. Restructuring provisions largely include restructuring provisions that were set aside within the framework of the group-wide UniCredit Unlocked strategic plan. These provisions are set aside for a long term and the uncertainties in estimates low. Other provisions are largely long-term provisions. The uncertainties in making estimates depend on each particular case; some of these are easy to estimate, for example the provisions for rental guarantees and dismantling obligations, but some can be difficult to estimate where this involves individual cases contained in the provisions for legal risks.

The effects of changes in the discount rate and compounding led to a decrease of €40 million in provisions recognised in the income statement in the reporting year (previous year: decrease of €29 million). The effect of changes in the discount rate used for pension provisions is recognised in other comprehensive income.

Provisions for pensions and similar obligations
HVB Group grants its employees post-employment benefits that are structured as defined benefit plans or defined contribution plans.

In the case of defined benefit plans, the Bank undertakes to pay a defined future pension. The financial resources required to do so in the future can be accrued within the Bank (internal financing) or by payment of specific amounts to external pension funds (external financing).

In the case of defined contribution plans, the Bank undertakes to pay defined contributions to external pension funds which will later make the pension payments. Apart from paying the periodic contributions, the Bank has de facto no further obligations.

Defined benefit plans
Characteristics of the plans
Provisions for pensions and similar obligations include the direct commitments to HVB Group employees under company pension plans. These defined benefit plans are based in part on final salaries and in part on building-block schemes involving dynamic adjustment of vested rights. Fund-linked pension plans with a guaranteed minimum rate of interest of 2.75% have been granted in Germany since 2003.

The obligations financed by Pensionskasse der HypoVereinsbank VVaG (HVB Pensionskasse) are included in the disclosures regarding pension obligations (the total includes the obligations of HVB Unterstützungskasse e.V. reinsured by HVB Pensionskasse). The standard HVB Group valuation parameters are used when calculating these obligations. Any plan surplus is subject to the rules governing the asset ceiling, as the assets belong to the members of HVB Pensionskasse.

HVB Group set up plan assets in the form of contractual trust arrangements (CTA). This involved transferring the assets required to fund its pension obligations to legally independent trustees, including HVB Trust e.V., which manage the assets in line with the respective trustee contracts.

There are no legal or regulatory minimum funding requirements in Germany.

HVB Group reorganised its company plans for pensioners (direct commitments) in 2009. HVB Trust Pensionsfonds AG (pension fund) was set up in this process. For the first time in December 2009 and again in December 2016 and 2022, pension commitments and pension obligations of the Bank for beneficiaries who had already received pension benefits in October 2009, 2016 or 2022 respectively and corresponding plan assets to cover the claims of these beneficiaries were transferred to the pension fund. The amount was calculated on the basis of the framework conditions permitted for tax purposes for a transfer of direct commitments to a pension fund in accordance with the BMF circular of 10 July 2015. The pensioners' pension claims are not affected by the transfer; HVB continues to guarantee the pension. The pension fund is a legally independent institution regulated by the German Federal Financial Supervisory Authority (BaFin).

HVB Group is exposed to various risks in connection with its defined benefit plans. Potential pension risks exist with regard to both the benefit obligations (liabilities side) and the plan assets allocated to cover the beneficiaries' claims (assets side). Defined benefit obligations are exposed to actuarial risks such as interest rate risk, longevity risk, salary- and pension-adjustment risk and inflation risk. In the case of fund-linked pension obligations, there is the risk that it will prove impossible in the long run to generate the guaranteed interest rate of 2.75% from the funds allocated to the pension commitments, given persistently low interest rates. With regard to the capital investment, the assets are primarily exposed to market risk such as price risks in securities holdings or changes in the value of real estate investments.

The major pension risk is thus expressed as a deterioration in the funded status as a result of unfavourable developments of defined benefit obligations and/or plan assets, since the sponsoring companies are required to act to service the beneficiaries' claims in the event of any plan deficits. No unusual, company-specific or plan-specific risks or material risk concentrations that could affect the Group's pension plans are currently identifiable.

Notes to the Balance Sheet (Continued)

Reconciliations

The amounts from defined benefit plans for post-employment benefits recognised in the consolidated balance sheet can be derived as follows:

€ millions	**2023**	**2022**
Present value of funded pension obligations	4,222	4,025
Fair value of plan assets	(4,138)	(4,135)
Funded status	**84**	**(110)**
Present value of unfunded pension obligations	7	7
Net liability (net asset) of defined benefit plans	**91**	**(103)**
Asset ceiling	—	—
Capitalised excess cover of plan assets	41	178
Recognised pension provisions	**132**	**75**

The following tables show the changes in the present value of the total (funded and unfunded) pension obligations, the fair value of the plan assets and the net defined benefit liability (net asset) resulting from offsetting these totals. Since a change in the net liability (net asset) is shown here, the positive or negative amounts in the following table are derived from the effect on this net liability (net asset): for example, an increase in the present value of pension obligations is shown as a positive amount or an increase in the fair value of plan assets as a negative amount (in brackets) and vice versa. The tables also show the changes in the effects of the asset ceiling during the financial year and the reconciliations from the opening to the closing balance of the capitalised excess cover of plan assets and the recognised provisions for pensions and similar obligations:

€ millions	PRESENT VALUE OF PENSION COMMIT-MENTS	FAIR VALUE OF PLAN ASSETS	NET LIABILITY (NET ASSET) OF DEFINED BENEFIT PLANS	ASSET CEILING	CAPITALISED EXCESS COVER OF PLAN ASSETS	RECOGNISED PENSION PROVISIONS
Balance as at 1/1/2023	**4,032**	**(4,135)**	**(103)**	**—**	**178**	**75**
Service cost component						
Current service cost	38	—	38	—	—	38
Past service cost	—	—	—	—	—	—
Gains/losses on settlement	—	—	—	—	—	—
Net interest component						
Interest expense/income	153	(159)	(6)	—	—	(6)
Service costs and net interest of defined benefit plans recognised in profit or loss for the period	**191**	**(159)**	**32**	**—**	**—**	**32**
Remeasurement component						
Gains/losses on plan assets excluding amounts included in net interest on the net defined benefit liability (asset)	—	5	5	—	—	5
Actuarial gains/losses - demographic assumptions	—	—	—	—	—	—
Actuarial gains/losses - financial assumptions	138	—	138	—	—	138
Actuarial gains/losses - experience adjustments	25	—	25	—	—	25
Changes due to asset ceiling excluding amounts included in net interest on the net defined benefit liability (asset)	—	—	—	—	—	—
Remeasurements component of defined benefit plans recognised in OCI	**163**	**5**	**168**	**—**	**—**	**168**
Other changes						
Excess cover of plan assets	—	—	—	—	(137)	(137)
Exchange differences	—	(1)	(1)	—	—	(1)
Contributions to the plan:						
Employer	(1)	(5)	(6)	—	—	(6)
Plan participants	9	(8)	1	—	—	1
Pension payments	(164)	164	—	—	—	—
Business combinations, disposals and other	(1)	1	—	—	—	—
Balance as at 31/12/2023	**4,229**	**(4,138)**	**91**	**—**	**41**	**132**

Notes to the Balance Sheet (CONTINUED)

€ millions	PRESENT VALUE OF PENSION COMMIT-MENTS	FAIR VALUE OF PLAN ASSETS	NET LIABILITY (NET ASSET) OF DEFINED BENEFIT PLANS	ASSET CEILING	CAPITALISED EXCESS COVER OF PLAN ASSETS	RECOGNISED PENSION PROVISIONS
Balance as at 1/1/2022	**5,737**	**(4,979)**	**759**	**—**	**—**	**759**
Service cost component						
Current service cost	76	—	76	—	—	76
Past service cost	—	—	—	—	—	—
Gains/losses on settlement	—	—	—	—	—	—
Net interest component						—
Interest expense/income	72	(63)	9	—	—	9
Service costs and net interest of defined benefit plans recognised in profit or loss for the period	**148**	**(63)**	**85**	**—**	**—**	**85**
Remeasurement component						
Gains/losses on plan assets excluding amounts included in net interest on the net defined benefit liability (asset)	—	790	790	—	—	790
Actuarial gains/losses - demographic assumptions	—	—	—	—	—	—
Actuarial gains/losses - financial assumptions	(1,768)	—	(1,768)	—	—	(1,768)
Actuarial gains/losses - experience adjustments	23	—	23	—	—	23
Changes due to asset ceiling excluding amounts included in net interest on the net defined benefit liability (asset)	—	—	—	—	—	—
Remeasurements component of defined benefit plans recognised in OCI	**(1,745)**	**790**	**(955)**	**—**	**—**	**(955)**
Other changes						
Excess cover of plan assets	—	—	—	—	178	178
Exchange differences	(3)	5	2	—	—	2
Contributions to the plan:						
Employer	—	(5)	(5)	—	—	(5)
Plan participants	9	(9)	—	—	—	—
Pension payments	(158)	158	—	—	—	—
Business combinations, disposals and other	44	(32)	12	—	—	12
Balance as at 31/12/2022	**4,032**	**(4,135)**	**(103)**	**—**	**178**	**75**

At the end of the reporting period, 27% (previous year: 28%) of the present value of the defined benefit obligations of €4,229 million (previous year: €4,032 million) was attributable to active employees, 22% (previous year: 22%) to former employees with vested benefit entitlements and 51% (previous year: 50%) to pensioners and surviving dependants.

Actuarial assumptions
The main actuarial assumptions used to determine the present value of the gross defined benefit obligations are listed below. The summarised disclosure for several plans takes the form of weighted average factors:

in %	2023	2022
Actuarial interest rate	3.60	3.85
Rate of increase in pension commitments	2.25	2.25
Rate of increase in future compensation and over career	2.50	2.50

The mortality rate underlying the actuarial calculation of the present value of defined benefit obligations is based on the modified Heubeck 2018 G tables (generation tables) that allow for the probability of mortality to fall to 95% for women (previous year: 95%) and 80% for men (previous year: 80%).

HVB Group similarly reduces the probability of disability based on these guidance tables to 80% for women and men equally (previous year: 80%). Since any changes in the actuarial assumptions regarding disability fundamentally only have a minor impact on the present value of the defined benefit obligation, HVB Group does not calculate any sensitivities for this valuation parameter.

In addition, the present value of defined benefit obligations is influenced by assumptions regarding future inflation rates. Inflation effects are generally taken into account in the assumptions listed above.

Sensitivity analyses
The sensitivity analyses discussed below are intended to show how the present value of the defined benefit obligations would change in case of a change to an actuarial assumption in isolation with the other assumptions remaining unchanged compared with the original calculation. Possible correlation effects between the individual assumptions are not taken into account in this context. The sensitivity analyses are based on the changes to the actuarial assumptions expected by HVB Group at the reporting date for the subsequent reporting period.

Notes to the Balance Sheet (Continued)

An increase or decrease in the significant actuarial assumptions in the amount of the percentage points shown in the table would have had the following impact on the present value of the defined benefit obligations at the reporting date:

	CHANGES IN THE ACTUARIAL ASSUMPTIONS	IMPACT ON THE PRESENT VALUE OF PENSION OBLIGATIONS		
		PRESENT VALUE OF LIABILITY	ABSOLUTE CHANGES	RELATIVE CHANGES
		€ millions	€ millions	in %
Sensitivities as at 31/12/2023				
	Basic value of the calculation of sensitivity	4,229		
Actuarial interest rate	Increase of 25 basis points	4,082	(147)	(3.5)
	Decrease of 25 basis points	4,384	155	3.7
Rate of increase in pension obligations	Increase of 25 basis points	4,336	107	2.5
	Decrease of 25 basis points	4,125	(104)	(2.5)
Rate of increase in future compensation/career trend	Increase of 25 basis points	4,232	3	0.1
	Decrease of 25 basis points	4,227	(2)	(0.0)
Sensitivities as at 31/12/2022				
	Basic value of the calculation of sensitivity	4,032		
Actuarial interest rate	Increase of 25 basis points	3,892	(140)	(3.5)
	Decrease of 25 basis points	4,179	147	3.6
Rate of increase in pension obligations	Increase of 25 basis points	4,132	100	2.5
	Decrease of 25 basis points	3,933	(99)	(2.5)
Rate of increase in future compensation/career trend	Increase of 25 basis points	4,033	1	0.0
	Decrease of 25 basis points	4,029	(3)	(0.1)

The observable decline in mortality rates is associated with an increase in life expectancy depending on the individual age of each beneficiary. In order to determine the sensitivity of the mortality or longevity, the lifetime for all beneficiaries was increased by one year. The present value of the defined benefit obligations as at 31 December 2023 would rise by €132 million (3.1%) to €4,361 million (previous year: by €147 million (3.6%) to €4,179 million) as a result of this change. HVB Group considers an opposite trend, that is an increase in mortality or a decrease in life expectancy, to be unlikely and has therefore not calculated a sensitivity for this case in the reporting year (or in the previous year).

When determining the sensitivities of defined benefit obligations for the main actuarial assumptions, the same method has been applied (projected unit credit method) as has been used to calculate the pension provisions recognised in the consolidated balance sheet. Increases and decreases in the various valuation assumptions do not entail the same absolute amount in their impact when the defined benefit obligation is calculated, due mainly to the compound interest effect when determining the present value of the future benefit. If several assumptions change at the same time, the combined effect does not necessarily correspond to the sum total of the individual effects. Furthermore, the sensitivities only reflect a change in the present value of the defined benefit obligation for the actual extent of the change in the assumptions (such as 0.25%). If the assumptions change to a different extent, this does not necessarily have a straight-line impact on the present value of the defined benefit obligation. Since the sensitivity analyses are based on the average duration of the expected pension obligations, and consequently the expected disbursement dates are not taken into account, they only result in indicative information or trends.

Asset liability management
Plan assets are managed by a trustee with a view to ensuring that the present and future pension obligations are settled by applying an adequate investment strategy, thus minimising the risk of the trustors or sponsoring companies having to provide additional capital.

Under the CTA, capital investment decisions are taken by an institutionalised body, the Investment Committee, which defines the investment strategy and policies for the plan assets. The concept calls for assets to be invested in line with the structure of the pension obligations in particular and an appropriate return to be generated taking into account the associated risks. In order to optimise the risk/return ratio, the Investment Committee sets strategic allocation ranges and investment limits for the asset classes in the plan assets, which can be exploited flexibly within the agreed risk budget. The bodies and processes required by law have been set up as appropriate for HVB Pensionskasse and the pension fund.

In order to allow for an integral view of plan assets and defined benefit obligations (asset liability management), pension risks are monitored on a regular basis with the aid of a specially developed risk model and included in the Bank's risk calculation. Since HVB Group employs various methods involving legally independent entities to implement the company pension plans, risk management concepts including stress tests and analysis of risk-taking capacity are also applied in specific instances.

Alongside the actuarial risks mentioned above, the risks associated with the defined benefit obligations relate primarily to financial risks in connection with the plan assets. The capital investment risk in the funding of the pension obligations encompasses notably potential liquidity, credit, concentration, market and real estate risks.

Liquidity risk can result from the non-existent or limited marketability of capital investments, which may result in losses when the assets are sold to settle payment obligations. HVB is not currently exposed to this risk as the expected incoming payments are sufficient to meet the payment obligations. In addition, an appropriate proportion of the capital investments is invested in assets classified as liquid (cash and cash equivalents/term deposits). Liquidity projections are prepared at regular intervals with a view to continue avoiding this risk.

Credit risk stems from possible deteriorations in the solvency of individual debtors through to insolvency. This risk is mitigated by deliberately spreading the capital investments and complying with specific investment policies regarding the creditworthiness of issuers. The relevant ratings are monitored constantly.

Concentration risk arises from excessive investment in an individual asset class, individual industry, individual security or individual property. This risk is countered by means of a broad diversification in line with investment policies, an ongoing review of the capital investment policy and specific parameters for asset managers. Among other things, targeted investment in mixed investment funds is used to reduce concentration risk by diversifying the composition of the fund assets.

Notes to the Balance Sheet (Continued)

Market risk has its roots in the risk of declining fair values caused by negative changes in market prices, equity prices and changes in interest rates. Here, too, compliance with the parameters specified for the composition and diversity of capital investments is ensured and risk-limiting investment policies are defined for asset managers.

Real estate risk is entailed in both directly held real estate and special-purpose real estate funds. It results from factors like possible rental defaults, loss of property value, high maintenance costs and declining location attractiveness. To minimise these risks, a limit is set for the proportion that may be invested in real estate and the greatest possible diversification is sought. In addition, the conclusion of short-term rental contracts is avoided for directly owned real estate.

Disaggregation of plan assets
The following table shows a disaggregation of the plan assets used to fund the defined benefit obligations by asset class:

€ millions	**2023**	**2022**
Participating interests	208	221
Debt securities	204	212
Properties	22	23
Mixed investment funds	3,102	3,037
Property funds	580	619
Cash and cash equivalents/term deposits	19	20
Other assets	3	3
Total	**4,138**	**4,135**

Quoted market prices in an active market were observed for most of the fixed-income securities held directly and almost all the types of asset held in the mixed investment fund. As a general rule, the fixed-income securities have an investment grade rating.

In terms of amount, the investment in mixed investment funds represents the lion’s share of the asset allocation for the plan assets. The deliberate investment in various asset classes and the general restriction to traditional investment instruments serve to ensure a risk-mitigating minimum diversification and also reflect a conservative underlying strategy. The high proportion of bonds with a medium- to long-term benchmark (such as government and corporate bonds, and Pfandbriefe) held in the fund implies low volatility with the intention of balancing the development in the value of the long-term pension commitments that follows general interest rates.

The following table shows a detailed breakdown of the mixed investment fund:

in %	**2023**	**2022**
Equities	6.4	7.5
German equities	0.6	0.5
European equities	4.2	4.8
Other equities	1.6	2.2
Government bonds	33.1	38.7
Pfandbriefe	2.8	4.0
Corporate bonds	41.9	31.2
German corporate bonds	2.9	2.4
European corporate bonds	24.8	18.2
Other corporate bonds	14.2	10.6
Fund certificates	11.9	11.8
Cash and cash equivalents/term deposits	3.9	6.8
Total	**100.0**	**100.0**

The plan assets comprised the Group's own financial instruments, property occupied by HVB Group companies and other assets at the reporting date:

€ millions	**2023**	**2022**
Participating interests	—	—
Debt securities	8	16
Properties	—	—
Mixed investment funds	65	60
Property funds	—	—
Cash and cash equivalents/term deposits	19	—
Other assets	—	—
Total	**92**	**76**

Future cash flows
There are financing agreements at HVB Group that contain measures to fund defined benefit plans. The minimum funding requirements included in the agreements may have an impact on future contribution payments. In the case of HVB Trust Pensionsfonds AG, HVB Group is liable for calls for additional capital should the assets fall below the minimum cover provision. The Bank is required to make an additional contribution for HVB Pensionskasse if the permanent financing of the obligations is no longer ensured. No such requirement for calls for additional capital exists for the CTA.

HVB Group intends to make contributions totalling €21 million to defined benefit plans in the 2024 financial year (previous year: €21 million).

The weighted average duration of HVB Group's defined benefit obligations at the reporting date amounted to 14.5 years (previous year: 14.5 years).

Multi-employer plans
HVB Group is a member of Versorgungskasse des Bankgewerbes e.V. (BVV), which also includes other financial institutions in Germany in its membership. BVV provides company pension benefits for eligible employees of the sponsoring companies. The BVV tariffs allow for fixed pension payments with profit participation. On account of the employer's statutory subsidiary liability applicable in Germany (Section 1 (1) s.3 of the German Occupational Pensions Act (Betriebsrentengesetz – BetrAVG)), HVB Group classifies the BVV plan as a multi-employer defined benefit plan.

Since the available information is not sufficient to allow this plan to be accounted for as a defined benefit plan by allocating to the individual member companies the assets and the pension obligations relating to active and former employees, HVB Group accounts for the plan as if it were a defined contribution plan.

In the event of a plan deficit, the Group may be exposed to investment risk and actuarial risk. In addition, a need for adjustment might arise from compensating the beneficiaries for inflation. HVB Group does not currently expect to be called upon based on its statutory subsidiary liability.

Notes to the Balance Sheet (Continued)

HVB Group expects to book employer contributions of €20 million for this pension plan in the 2024 financial year (previous year: €21 million). Due to the current interest rate environment, BVV reduced the payment for the future pension rights in 2016. To exempt the Bank's employees from this reduction in payment, the Bank, as the employer, pays an additional contribution so that employees do not suffer any disadvantage in their future pension rights. This additional contribution amounts to €5 million in the 2024 financial year (previous year: €5 million).

The total contribution income of the BVV in the 2022 financial year amounted to €712 million (2021: €731 million). The figure of the BVV for the 2023 financial year was not yet available at the time of preparing these notes to the consolidated financial statements.

Defined contribution plans
HVB Group companies pay fixed amounts for each period to independent pension funds for the defined contribution pension commitments. The contributions for the defined contribution plans recognised as current expense under payroll costs totalled €22 million in the reporting year (previous year: €21 million).

The employer contributions to the statutory pension scheme and the alternative professional pension schemes, which qualify as defined contribution state plans, are similarly included in payroll costs. Such contributions amounted to €85 million in the reporting year (previous year: €82 million).

Provisions for financial guarantees and irrevocable credit commitments, restructuring provisions and other provisions

	PROVISIONS FOR FINANCIAL GUARANTEES AND IRREVOCABLE CREDIT COMMITMENTS		RESTRUCTURING PROVISIONS[1]		OTHER PROVISIONS	
€ millions	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Balance as at 1/1	**330**	**454**	**595**	**690**	**781**	**848**
Changes in consolidated group	—	—	—	—	—	—
Changes arising from foreign currency translation	—	1	—	—	(1)	(1)
Transfers to provisions	180	189	334	86	118	133
Reversals	(226)	(318)	(95)	(45)	(105)	(164)
Reclassifications	—	—	(188)	—	144	—
Amounts used	—	—	(77)	(28)	(212)	(124)
Non-current assets or disposal groups held for sale	—	—	—	—	—	—
Other changes	—	4	(38)	(108)	(22)	89
Balance as at 31/12	**284**	**330**	**531**	**595**	**703**	**781**

1 The transfers and reversals are included in the income statement in the item "Restructuring costs" together with other restructuring costs accruing during the reporting period.

Changes in provisions for financial guarantees and irrevocable credit commitments (loss allowances)

€ millions	STAGE 1	STAGE 2	STAGE 3	TOTAL
Balance as at 1/1/2023	**71**	**69**	**190**	**330**
Addition due to new business	37	—	—	37
Change in carrying amount within the same stage	(25)	(21)	101	55
Transfers to another stage due to deterioration in credit quality	(30)	58	15	43
from Stage 1 to Stage 2	(30)	62	—	32
from Stage 2 to Stage 3	—	(4)	14	10
from Stage 1 to Stage 3	—	—	1	1
Transfers to another stage due to improvement in credit quality	5	(8)	(2)	(5)
from Stage 2 to Stage 1	5	(8)	—	(3)
from Stage 3 to Stage 2	—	—	(2)	(2)
from Stage 3 to Stage 1	—	—	—	—
Increase in impairment reported directly in equity for interest claims not recognised in profit or loss	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—
Disposals (reversal due to disposal of receivable)	(9)	(18)	(150)	(177)
Disposals (utilisation of impairments)	—	—	—	—
Reversal of the discounted amount and recognition of interest claims not previously recognised in profit or loss	—	—	1	1
Foreign currency movements and other changes	—	—	—	—
Balance as at 31/12/2023	**49**	**80**	**155**	**284**
Balance as at 1/1/2022	**89**	**49**	**316**	**454**
Addition due to new business	23	—	—	23
Change in carrying amount within the same stage	(32)	9	(1)	(24)
Transfers to another stage due to deterioration in credit quality	(14)	49	—	35
from Stage 1 to Stage 2	(14)	49	—	35
from Stage 2 to Stage 3	—	—	—	—
from Stage 1 to Stage 3	—	—	—	—
Transfers to another stage due to improvement in credit quality	5	(34)	—	(29)
from Stage 2 to Stage 1	5	(34)	—	(29)
from Stage 3 to Stage 2	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—
Increase in impairment reported directly in equity for interest claims not recognised in profit or loss	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—
Disposals (reversal due to disposal of receivable)	—	(4)	(130)	(134)
Disposals (utilisation of impairments)	—	—	—	—
Reversal of the discounted amount and recognition of interest claims not previously recognised in profit or loss	—	—	1	1
Foreign currency movements and other changes	—	—	4	4
Balance as at 31/12/2022	**71**	**69**	**190**	**330**

Notes to the Balance Sheet (Continued)

Restructuring provisions
Restructuring provisions in the reporting year are based on measures that are built on the already existing UniCredit Unlocked strategic plan. The strategic guidelines of the groupwide Unlocked plan in terms of simplification, customer focus and digitalisation are still valid. In the reporting period, further strategic measures were started within the framework of the UniCredit Unlocked strategic plan to support the achievement of the long-term goals of the strategic plan. Among other things, this includes the reorganisation of the Digital & Information and Operations business areas into the Digital & Operations business area, the simplification of HVB's trading activities through the gradual transfer of individual trading activities to UniCredit S.p.A. and further planned reorganisations.

These measures and the changes in framework conditions require further adjustments to be made in the Bank's staff planning. Therefore, most of the restructuring provisions relate to the planned, socially compatible reduction in staffing levels, which is to be achieved above all by natural fluctuation, early retirement solutions and severance agreements.

HVB Group uses the UniCredit groupwide service offering of IT activities and certain other administrative activities of UniCredit S.p.A. These services are charged to HVB Group by UniCredit S.p.A. according to origin based on cost. In the course of the reorientation of the UniCredit corporate group, further restructuring measures involving the IT activities concerned/other service areas are planned for 2023 and 2024. HVB Group has set aside restructuring provisions on a pro rata basis for the areas of UniCredit S.p.A. to be restructured that provide their services almost exclusively for HVB Group.

In the previous-year period, restructuring provisions related, among other things, to measures for the migration of various trading systems to a central trading system. The historically grown structure of HVB Group's trading systems is to be made considerably easier by transferring the activities concerned to one trading platform. Restructuring provisions also related to adjustments in the number of employees.

Other provisions
Changes in other provisions

€ millions	PAYROLL PROVISIONS	PROVISIONS RELATED TO TAX DISPUTES (WITHOUT INCOME TAXES)	PROVISIONS FOR RENTAL GUARANTEES AND DISMANTLING OBLIGATIONS	PROVISIONS FOR LEGAL RISKS AND SIMILAR RISKS	OTHER PROVISIONS	TOTAL OTHER PROVISIONS
Balance as at 1/1/2023	**317**	**116**	**105**	**158**	**85**	**781**
Changes in consolidated group	—	—	—	—	—	—
Changes arising from foreign currency translation	—	—	—	—	(1)	(1)
Transfers to provisions	46	24	1	6	41	118
Reversals	(5)	(26)	(16)	(9)	(49)	(105)
Reclassifications	144	—	—	—	—	144
Amounts used	(95)	(68)	(16)	(22)	(11)	(212)
Non-current assets or disposal groups held for sale	—	—	—	—	—	—
Other changes	(15)	(4)	(1)	4	(6)	(22)
Balance as at 31/12/2023	**392**	**42**	**73**	**137**	**59**	**703**
Balance as at 1/1/2022	**298**	**160**	**99**	**178**	**113**	**848**
Changes in consolidated group	—	—	—	—	—	—
Changes arising from foreign currency translation	—	—	—	—	(1)	(1)
Transfers to provisions	22	4	47	22	25	120
Reversals	(10)	(42)	(34)	(12)	(54)	(152)
Reclassifications	91	—	(4)	—	—	87
Amounts used	(77)	(3)	(6)	(21)	(8)	(115)
Non-current assets or disposal groups held for sale	—	—	—	—	—	—
Other changes	(7)	(3)	3	(9)	10	(6)
Balance as at 31/12/2022	**317**	**116**	**105**	**158**	**85**	**781**

Payroll provisions carried under other provisions encompass long-term obligations to employees such as provisions for service anniversary awards, early retirement or partial retirement. In addition, payroll provisions cover the parts of the bonus that are disbursed on a deferred basis, or transferred in cases where the bonus is granted in the form of shares, with the waiting period exceeding one year. The disbursement of these bonuses is additionally dependent upon the achievement of pre-defined targets. The bonus commitments for the 2018, 2019, 2020, 2021, 2022 and 2023 financial years to be disbursed as of 2024 are included here accordingly. The bonus provisions included here have been taken to the income statement in both the reporting period and the previous financial years. It is considered highly probable that the bonus will be disbursed. For details of the bonus plan, please refer to the Note “Operating costs”.

The amount of the respective provisions reflects the best estimate of the amount required to settle the obligation at the reporting date. Nevertheless, estimating the amounts of these provisions is subject to uncertainties. In the case of rental guarantees in particular, cost estimates are validated on a regular basis in addition to the assumptions regarding terms.

Notes to the Balance Sheet (Continued)

74 Shareholders' equity

The shareholders' equity of HVB Group as at 31 December 2023 consisted of the following:

Subscribed capital (share capital)

On 31 December 2023, the share capital of UniCredit Bank GmbH (HVB) amounted to €2,407 million and was divided into 802,383,672 shares with the consecutive numbers 1 to 802,383,672 at a nominal amount of €3.00 each. All of the shares were taken over by UniCredit S.p.A. The capital contributions were made through a change in the legal form of the previous legal entity, UniCredit Bank AG headquartered in Munich, registered in the Commercial Register of Munich Local Court under HRB 42148, in accordance with the resolution on the change in legal form adopted on 11 December 2023. After registration of the change in legal form, the assets of UniCredit Bank AG became the assets of the company.

On 31 December 2022, the subscribed capital of UniCredit Bank AG totalled €2,407 million and consisted of 802,383,672 no par shares of common bearer stock. The shares carried voting and dividend rights. The proportionate amount of share capital attributable to each share amounted to €3.00 per no par share. The shares were fully paid in.

Additional paid-in capital

The additional paid-in capital results from premiums generated on the issuance of shares; the total at 31 December 2023 amounted to €9,791 million (previous year: €9,791 million).

Other reserves

Other reserves of €4,319 million (previous year: €4,652 million) mainly contain retained earnings. The decline is largely attributable to actuarial losses of €115 million and valuation losses of €128 million on owner-occupied property. Furthermore, payments of €99 million for additional equity instruments were made from other reserves.

Change in valuation of financial instruments

The hedge reserve shows a year-on-year decline of €6 million to minus €2 million.

The FVTOCI reserve of minus €8 million (previous year: €11 million) contains the difference between the amortised cost and the fair value of the securities holdings allocated to this category. In the reporting year, the FVTOCI reserve was reduced by €19 million after tax through other comprehensive income in the consolidated statement of total comprehensive income.

Additional equity instruments

In October 2020, HVB issued regulatory own funds in the form of two additional Tier 1 issues (AT1 bonds), which were fully subscribed by UniCredit S.p.A. The Bank is optimising its capital structure with the issues, also against the backdrop of the changes in regulatory requirements by the European Banking Authority (EBA). The AT1 bonds meet the criteria set out in the Capital Requirements Regulation (CRR II) and can be used to meet MREL requirements (SRMR II).

The AT1 bonds, which have a volume of €1,000 million and €700 million respectively and an indefinite term, are unsecured and subordinate. AT1 bonds can only be terminated by the issuer. As the issuer, HVB has the right to waive interest in whole or in part at its discretion. The bond terms stipulate a temporary write-down in the event that the Bank's CET 1 ratio falls below the 5.125% mark on a stand-alone basis or consolidated basis pursuant to the CRR. Under certain conditions, a (re-)write-up is possible at HVB's discretion.

In addition, the issues have the following features:
– The issue of €1,000 million can be called in for the first time after five years and initially bears 5.794% interest for five years; from 20 October 2025 the interest rate corresponds to the 5-year EUR mid-market swap rate of +6.250% p.a. until the next interest rate adjustment date after five years.
– The issue of €700 million can be called in for the first time after six years and initially bears 5.928% interest for six years; from 20 October 2026 the interest rate corresponds to the 5-year EUR mid-market swap rate of +6.350% p.a. until the next interest rate adjustment date after five years.

In October 2023, interest of €99 million was paid on both instruments. This amount was disbursed on a gross basis (€99 million) within shareholders' equity as payment on additional equity instruments and charged to retained earnings. The interest payments are tax deductible. The tax effect of €31 million was recognised through profit or loss in the income statement under the "Income taxes" item.

The AT1 bonds are shown as additional Tier 1 capital (AT1) under regulatory own funds; the interest is recognised as appropriation of profit based on a resolution of HVB's Executive Board.

Notes on the appropriation of profit

In the 2023 financial year, the profit available for distribution disclosed in the annual financial statements of HVB, which forms the basis for the appropriation of profit, amounts to €1,725 million. This consists of the net income for the year of €2,133 million generated in the reporting year less the amount of €408 million transferred to other retained earnings. We will propose to the Shareholders' Meeting that the profit available for distribution of €1,725 million be paid to UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a profit distribution of around €2.15 per share after a dividend of around €1.45 per share for the 2022 financial year. The profit available for distribution of €1,160 million reported in the previous year was distributed to UniCredit S.p.A. on 30 March 2023 in accordance with a resolution adopted by the Shareholders' Meeting on 27 March 2023.

75 Subordinated capital

The following table shows the breakdown of subordinated capital included in the balance sheet items "Deposits from banks", "Debt securities in issue" and "Shareholders' equity":

€ millions	2023	2022
Subordinated liabilities	1,110	1,108
Hybrid capital instruments	1,700	1,700
Total	**2,810**	**2,808**

In October 2020, HVB issued regulatory own funds in the form of two **additional Tier 1 issues (AT1 bonds)**, which were fully subscribed by UniCredit S.p.A. The Bank is optimising its capital structure with the issues, also against the backdrop of the changes made in regulatory requirements by the European Banking Authority (EBA). The AT1 bonds meet the criteria specified in the Capital Requirements Regulation (CRR II) and can be used to meet MREL requirements (SRMR II). The instruments are presented in detail in the note on shareholders' equity

At the end of June 2020, HVB issued regulatory own funds in the form of a **Tier 2 capital bond (Tier 2 bond)**, which was fully subscribed by UniCredit S.p.A. The Bank is optimising its capital structure with the issue, also against the backdrop of the changes made in regulatory requirements by the European Banking Authority (EBA). The subordinated bond meets the criteria for Tier 2 capital specified in the Capital Requirements Regulation (CRR II) and can also be used to meet MREL requirements (SRMR II).

Notes to the Balance Sheet (Continued)

The subordinated bond has a volume of €800 million and a maturity of ten years with a call provision for the issuer after five years. The bond has a fixed interest rate of 3.469% per annum for the first five years, which is re-determined after five years based on the five-year swap rate valid at that time plus a 380 basis point spread, as long as the bond has not been repaid after five years. The conditions at the time of issuance (at arm's length) are in line with the market.

In this context, subordinated liabilities have been classified as Tier 2 capital for banking supervisory purposes in accordance with the provisions of Articles 62 (1a), 63 to 65, 66 (1a) and 67 CRR. Only the AT1 bonds issued in the amount of €1,700 million are recognised as additional Tier 1 capital instruments pursuant to Article 51 ff CRR for banking supervisory purposes.

The following table shows the breakdown of subordinated capital by balance sheet item:

€ millions	**2023**	**2022**
Deposits from customers	—	—
Deposits from banks	230	228
Debt securities in issue	880	880
Shareholders' equity	1,700	1,700
Total	**2,810**	**2,808**

We incurred interest expenses of €27 million (previous year: €17 million) in connection with this subordinated capital. Subordinated capital includes pro rata interest of €17 million (previous year: €15 million).

Subordinated liabilities
The borrowers cannot be obliged to make early repayments in the case of subordinated liabilities. In the event of insolvency or liquidation, subordinated liabilities can only be repaid after the claims of all primary creditors have been settled.

There were subordinated liabilities of €230 million payable to related parties in the reporting period (previous year: €228 million).

Hybrid capital instruments
Hybrid core capital instruments include two AT1 bonds issued in 2020 totalling €1,700 million, which are accounted for under regulatory own funds as additional Tier 1 capital. These bonds are wholly held by UniCredit S.p.A. Please refer to the note on shareholders' equity for further details.

Notes to the Cash Flow Statement

76 Notes to the items in the cash flow statement

The cash flow statement shows the cash flows for the financial year, divided into the areas “operating activities”, “investing activities” and “financing activities”. Operating activities are defined broadly enough to allow the same breakdown as for operating profit.

The cash and cash equivalents shown correspond to the “Cash and cash balances” item in the balance sheet, comprising both cash on hand and balances at central banks repayable on demand.

The “Change in other non-cash positions” item comprises the changes in the measurement of financial instruments and investment properties, net additions to deferred taxes, changes in provisions, changes in prorated and deferred interest, the reversal of premiums and discounts, changes from measurement using the equity method, deconsolidation results and minority interests in net income.

All proceeds and payments from transactions relating to shareholders’ equity and subordinated capital are allocated to cash flows from financing activities. As in the previous year, there was no change with an effect on cash flow in the holdings of subordinated and hybrid capital included as financing liabilities in the cash flows from financing activities in the reporting period.

There were no gains on the disposal of shares in fully consolidated companies in the 2023 and 2022 financial years.

There were no significant acquisitions of subsidiaries or associates in the 2023 and 2022 financial years.

As in the previous year, no fully consolidated subsidiaries were sold in the financial year.

Other Information

77 Report on events after the reporting period
There were no business transactions of particular significance after 31 December 2023 to report.

78 Information regarding lease operations
HVB Group as lessee
Under IFRS 16 the accounting of leases by the lessee is carried out on the basis of a uniform accounting model (referred to as right-of-use approach).

The rental and lease agreements entered into by HVB Group as the lessee relate to real estate (land and buildings) on the one hand and movables (plant and office equipment including vehicles) on the other hand. Lease agreements for real estate are generally concluded for a non-cancellable basic term of ten years for new leases and include extension options with periods of between three and five years in around half of the cases. These agreements also contain price adjustment clauses in the form of graduated rent or index clauses; termination or purchase options are not usually agreed. The extension options are used to give HVB Group the maximum operational flexibility in relation to the assets used by the Bank. Most of these contractual options can only be exercised by HVB Group as the lessee and not by the respective lessor. HVB Group does not expect this to result in any significant cash outflows in the future that were not taken into account in the measurement of the lease liability. The lease agreements for movables have been concluded at customary market terms for lease periods of between three and nine years. No variable lease payments were agreed for any of the lease agreements concluded by HVB Group as the lessee. The Bank's obligations under leases are secured by the respective lessor's rights of ownership of the leased assets. Therefore, leased items may not be used as security for borrowing.

Amounts recognised in the consolidated balance sheet
In the consolidated balance sheet the following items were recognised in connection with leases where HVB Group is lessee.

The following table shows the carrying amount of the right-of-use assets reported under property, plant and equipment at the reporting date by class of underlying asset:

€ millions	2023	2022
Right-of-use assets (property, plant and equipment)		
Leased land and buildings	130	157
Leased plant and office equipment	8	6
Carrying amount as at 31/12	**138**	**163**

Additions to the right-of-use assets recognised under property, plant and equipment amounted to €58 million during the reporting year (previous year: €47 million).

The carrying amount of the lease liabilities reported under the items "Deposits from customers" and "Deposits from banks" at the reporting date is as follows:

€ millions	2023	2022
Lease liabilities	303	370
Carrying amount as at 31/12	**303**	**370**

The following table contains a maturity analysis for the lessee's lease liabilities and shows the undiscounted lease payments to be made after the reporting date:

€ millions	2023	2022
up to 1 year	69	81
from 1 year to 2 years	38	62
from 2 years to 3 years	122	33
from 3 years to 4 years	19	120
from 4 years to 5 years	16	18
from 5 years and over	65	77
Total	**329**	**391**

HVB Group sees no significant liquidity risk with regard to lease liabilities. The lease liabilities are monitored by the Bank's Treasury unit.

Amounts recognised in the consolidated income statement

The consolidated income statement contains the following amounts in connection with leases in which HVB Group is the lessee.

The following table shows the depreciation charge on the right-of-use assets contained in property, plant and equipment for the financial year by class of underlying assets. The write-downs are recognised under the item "Amortisation, depreciation and impairment losses on intangible and tangible assets" within operating costs:

€ millions	2023	2022
Depreciation expense from right-of-use assets (property, plant and equipment)		
Leased land and buildings	34	42
Leased plant and office equipment	5	6
Total	**39**	**48**

The depreciation charge on the right-of-use assets reported under property, plant and equipment totalling €39 million (previous year: €48 million) consists of scheduled depreciation of €40 million recognised as disposals (previous year: €51 million), non-scheduled depreciation (impairments) of €9 million (previous year: €12 million) and write-ups (impairment reversals) of €10 million recognised as additions (previous year: €15 million).

The effect recognised in interest expense from the accrued interest added to lease liabilities for the financial year is as follows:

€ millions	2023	2022
Interest expense from lease liabilities	2	4

Other Information (Continued)

The following table shows other expenses and income in connection with leases of the lessee that were recognised in the consolidated income statement during the financial year. Expenses in connection with short-term lease agreements and leases based on low-value assets are recognised under the item “Other administrative expenses”, whereas income from subleasing the right-of-use assets is shown as other operating income under property, plant and equipment:

€ millions	2023	2022
Expense from short-term leases	7	5
Expense from leases for low-value assets (excl. expense from short-term leases based on an asset of low value)	1	—
Income from subleases of right-of-use assets (property, plant and equipment)	—	1

Right-of-use assets that meet the definition of an investment property and are reported as such were not included in the above disclosures on the carrying amount, additions, depreciation charge or income from the subleasing of right-of-use assets. Disclosures on such right-of-use assets can generally be found in the Note “Investment properties”.

In the reporting year, cash outflows from leases totalled €83 million (previous year: €92 million).

HVB Group as lessor

The range of lease and hire-purchase products was changed within the framework of the “Team 23” strategic plan: Instead of the HVB subsidiary UniCredit Leasing GmbH, Hamburg, offering its own range of products, these are provided by an external cooperation partner. UniCredit Leasing GmbH and its subsidiaries thus discontinued selling lease and hire-purchase products with effect from 1 August 2020. Existing agreements are being continued and existing liabilities are being settled in full. As a result of the discontinuation of these sales, the number of lease agreements has decreased as agreements falling due are not replaced by new business.

According to IFRS 16, the lessor is required to classify leases either as operating leases or finance leases (dual lessor accounting model).

Operating leases

HVB Group acts as lessor in operating leases. These lease agreements mainly include real estate (land and buildings) and movable assets such as plant and office equipment, motor vehicles and industrial machinery. The lease agreements for real estate have terms of between three and five years. These agreements are based on customary market terms and include extension options and price adjustment clauses in the form of graduated rent or index clauses; termination options are not agreed. If the lessee exercises its right to extend the lease agreement, market review clauses are used. By contrast, lease agreements for the lessee do not usually include any option to purchase the leased property at the end of the lease period. Unguaranteed residual values do not represent a significant risk for HVB Group, as these relate to properties that have exhibited a steadily increasing trend in market values over many years. The Bank sees no indication of this trend changing in the future. Lease agreements for movable assets are generally concluded for terms of between four and ten years and include an additional purchase option; they do not include extension or price adjustment clauses. No variable lease payments were agreed by HVB Group as lessor in the concluded operating lease agreements.

The following table shows the lease income from lessor operating leases in the consolidated income statement during the financial year:

€ millions	2023	2022
Income from operating leases	46	47

The following table contains a maturity analysis of undiscounted payments from operating leases that the lessor will receive in the future:

€ millions	2023	2022
up to 1 year	37	47
from 1 year to 2 years	27	34
from 2 years to 3 years	25	30
from 3 years to 4 years	19	27
from 4 years to 5 years	14	26
from 5 years and over	37	89
Total	**159**	**253**

At the end of the reporting period, the carrying amount of the assets included in property, plant and equipment that are the subject of an operating lease amounts to €22 million (previous year: €24 million).

Finance leases
HVB Group acts as lessor under finance leases and leases out mobile assets. These mainly include plant and office equipment, aircraft, motor vehicles and industrial machinery. As a general rule, the lease agreements stipulate lease periods of between four and ten years and possibly a pre-emptive right in favour of the lessor; they do not contain any extension or premature termination options or price adjustment clauses. The residual risk for these leased assets is insignificant because there is a secondary market. No variable lease payments were agreed by HVB Group as lessor in the finance leases concluded.

The following table shows the amounts recognised in the consolidated income statement for finance leases held by the lessor during the financial year:

€ millions	2023	2022
Gains/(losses) on the disposal of finance leases	4	4
Finance income from the net investment in the lease (interest income from finance lease receivables)	6	9

The following table contains a maturity analysis of the lessor’s existing loans and receivables with customers or banks (at cost) from the lease operations (finance lease receivables) and shows the undiscounted lease payments to be received after the reporting date. The subsequent reconciliation to the net investment in the lease makes the unguaranteed residual value and the still unrealised finance income transparent in relation to the lease receivables:

€ millions	2023	2022
up to 1 year	174	279
from 1 year to 2 years	93	175
from 2 years to 3 years	85	99
from 3 years to 4 years	34	86
from 4 years to 5 years	17	34
from 5 years and over	28	45
Total amount of undiscounted lease payments to be received	**431**	**718**
+ Unguaranteed residual value	—	—
= Gross investment in the lease	**431**	**718**
- Unrealised finance income	(18)	(29)
= Net investment in the lease (finance lease receivables)	**413**	**689**

Other Information (Continued)

The total amount of undiscounted lease payments comprises the payments to be made in total by the lessee to the lessor under the finance lease including any residual value guarantees.

The unguaranteed residual value is that part of the residual value of the underlying asset whose realisation is not secured by the lessor.

The gross investment in the lease is the sum of the lease payments and the unguaranteed residual value.

Unrealised finance income is the difference between the gross investment in the lease and its present value (net investment). It corresponds to the return implicit in the lease between the reporting date and the end of the lease.

The net investment in the lease (finance lease receivables) is therefore determined by discounting the gross investment at the interest rate on which the lease is based.

79 Fair value hierarchy

The changes in financial instruments measured at fair value and recognised at fair value in the balance sheet are described below, notably with regard to the fair value hierarchy.

This fair value hierarchy is divided into the following levels:

Level 1 contains financial instruments measured using prices of identical assets or liabilities listed on active markets. These prices are incorporated unchanged. This category mainly includes listed equity instruments, bonds and exchange-traded derivatives.

Level 2 shows assets and liabilities whose valuation is derived from directly observable (prices) or indirectly observable (derived from prices) input data (valuation parameters). No price can be observed on an active market for the assets and liabilities concerned themselves. As a result of this, we notably show the fair values of interest rate and credit derivatives in this level together with the fair values of ABS bonds, provided a liquid market exists for the asset class in question.

Financial assets or liabilities of €1,099 million (previous year: €574 million) were transferred from Level 1 to Level 2. At the same time, financial assets or liabilities of €392 million (previous year: €711 million) were transferred from Level 2 to Level 1. Most of the transfers relate to securities and are due to an increase or decrease in the actual trading taking place in the securities concerned and the associated change in the bid-offer spreads and thus in the liquidity of the respective security.

The following table shows transfers between Level 1 and Level 2 for financial instruments where fair value is determined on a recurring basis:

€ millions	TO LEVEL 1	TO LEVEL 2
Financial assets held for trading		
Transfer from Level 1	—	323
Transfer from Level 2	9	—
Financial assets at FVTPL		
Transfer from Level 1	—	80
Transfer from Level 2	362	—
Financial assets at FVTOCI		
Transfer from Level 1	—	696
Transfer from Level 2	20	—
Financial liabilities held for trading		
Transfer from Level 1	—	—
Transfer from Level 2	1	—
Financial liabilities at FVTPL		
Transfer from Level 1	—	—
Transfer from Level 2	—	—

29 December is considered the transfer date for instruments transferred between the levels within the reporting period (1 January to 29 December). Therefore, the fair value as at 29 December is used as the value recognised for the transfer in levels.

Level 3 relates to assets or liabilities for which the fair value cannot be calculated exclusively on the basis of observable market data (non-observable input data). The amounts involved are stated in Level 2 if the impact of the non-observable input data on the determination of fair value is insignificant. Thus, the respective fair values also incorporate valuation parameters based on model assumptions. This includes derivatives and structured products that contain at least one “exotic” component, such as foreign currency or interest rate derivatives on illiquid currencies, derivatives without standard market terms, structured products with an illiquid underlying as a reference and ABS bonds of an asset class for which no liquid market exists.

Where the value of a financial instrument is based on non-observable valuation parameters, the value of these parameters may be selected from a range of possible appropriate alternatives at the reporting date. Appropriate values are determined for these non-observable parameters and applied for valuation purposes, upon valuation as at 29 December 2023. In addition, individual parameters that cannot be incorporated separately in the valuation model as standalone valuation parameters are taken into account by applying a model reserve.

Other Information (Continued)

The following measurement methods are applied for the individual classes of financial instrument depending on the product type. The measurements of financial instruments in fair value Level 3 depend upon the following significant parameters that cannot be observed on the market:

PRODUCT TYPE	MEASUREMENT METHOD	SIGNIFICANT NON-OBSERVABLE PARAMETERS	RANGE
Fixed-income securities and other debt instruments	Market approach	Price	1bps – 790bps
Equities	Market approach	Price	0% - 3%
Asset-backed securities (ABS)	DCF method	Credit spread curves	59bps – 1,488bps
		Residual value	0% - 70%
		Default rate	0% - 4%
		Prepayment rate	0% - 30%
Commodity/equity derivatives	Option price model	Commodity price volatility/equity volatility	1% - 12%
		Correlation between commodities/equities	2% - 24%
	DCF method	Dividend yields	1% - 26%
Interest rate derivatives	DCF method	Swap interest rate	0bps – 587bps
		Inflation swap interest rate	3bps – 12bps
	Option price model	Inflation volatility	1% - 3%
		Interest rate volatility	0% - 29%
		Correlation between interest rates	0% - 22%
Credit derivatives	Hazard rate model	Credit spread curves	1bps – 80bps
		Residual value	0% - 5%
Currency derivatives	DCF method	Yield curves	0bps – 587bps
	Option price model	FX volatility	0% - 29%

The sensitivity analysis presented below shows the impact of changing reasonable possible alternative parameter values on the fair value of the financial instruments classified as Level 3. The level of variation of the non-observable parameters reflects the prevailing market conditions regarding the valuation of sensitivities. For portfolios at fair value through profit or loss, the positive and negative fair value changes would amount to a plus or minus of €64 million respectively at the reporting date (previous year: a plus or minus of €40 million respectively).

The following table shows the significant sensitivity effects, broken down by the individual classes of financial instrument for the various product types:

	2023		2022	
€ millions	**POSITIVE**	**NEGATIVE**	**POSITIVE**	**NEGATIVE**
Fixed-income securities and other debt instruments	—	—	—	—
Equities	—	—	—	—
Asset-backed securities	—	—	—	—
Commodity/equity derivatives	59	(59)	36	(36)
Interest rate derivatives	4	(4)	4	(4)
Credit derivatives	—	—	—	—
Currency derivatives	1	(1)	—	—
Total	**64**	**(64)**	**40**	**(40)**

For fixed-income securities and other debt instruments as well as asset-backed securities, the credit spread curves were changed in the course of the sensitivity analyses. For equities, the spot price is varied using a relative value.

The following non-observable parameters were varied for the sensitivity analysis for equity derivatives included in Level 3: spot prices for hedge funds, implicit volatility, dividends, implicit correlations and assumptions regarding the interpolation between individual parameters observable on the market, such as volatilities. For interest rate products, interest rates, interest rate correlations and implicit volatilities were varied during the sensitivity analysis. For credit derivatives, shifts in the risk premium curves for credit risk were assumed together with changes in implicit correlations and increases in default rates. Foreign currency derivatives were varied in terms of the implicit volatility.

Where trades are executed for which the trade price deviates from the fair value at the trade date and non-observable parameters are employed to a considerable extent in valuation models, the financial instrument concerned is recognised at the trade price. This difference between the trade price and the fair value of the valuation model is defined as the trade date gain/loss. Corresponding gains and losses determined at the trade date are deferred and recognised in the income statement over the term of the trade. As soon as a reference price can be determined for the trade on an active market, or the input parameters are based on observable market data, the deferred trade date gain is taken directly to the income statement in net trading income.

The following table shows a year-on-year comparison of changes in trade date gains and losses that were deferred on account of the application of significant non-observable parameters for financial instruments recognised at fair value:

€ millions	**2023**	**2022**
Balance as at 1/1	**27**	**21**
New trades during the period	4	9
Write-downs	(2)	(4)
Expired trades	—	—
Retroactive change in observability	15	7
Exchange rate changes	—	—
Balance as at 31/12	**18**	**27**

The following table shows the allocation of the financial assets and financial liabilities recognised in the balance sheet at fair value to the respective levels of the fair value hierarchy:

	FAIR VALUE OBSERVED ON AN ACTIVE MARKET (LEVEL 1)		**FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2)**		**FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3)**	
€ millions	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Financial assets recognised in the balance sheet at fair value						
Financial assets held for trading	18,285	17,023	49,046	62,932	1,280	2,303
of which derivatives	2,738	3,506	42,020	55,669	1,157	1,707
Financial assets at FVTPL	1,552	2,324	966	1,747	697	1,079
Financial assets at FVTOCI	8,366	9,702	886	135	—	—
Hedging derivatives	—	—	405	630	4	6
Financial liabilities recognised in the balance sheet at fair value						
Financial liabilities held for trading	6,888	6,719	40,383	55,688	1,266	1,897
of which derivatives	4,822	4,860	36,860	51,846	892	1,604
Financial liabilities at FVTPL	—	—	4,416	4,535	244	283
Hedging derivatives	—	—	98	200	5	—

Other Information (Continued)

The following table shows the changes in the financial assets allocated to Level 3 in the fair value hierarchy:

€ millions	FINANCIAL ASSETS HELD FOR TRADING	FINANCIAL ASSETS AT FVTPL	FINANCIAL ASSETS AT FVTOCI	HEDGING DERIVATIVES
Balance as at 1/1/2023	**2,303**	**1,079**	**—**	**6**
Additions				
Purchases	484	194	—	—
Realised gains[1]	82	44	—	—
Transfer from other levels	206	7	—	—
Other additions[2]	6	8	—	—
Disposals				
Sales	(1,009)	(244)	—	(1)
Repayment	—	(100)	—	—
Realised losses[1]	(488)	(85)	—	(1)
Transfer to other levels	(278)	(198)	—	—
Other disposals	(26)	(8)	—	—
Balance as at 31/12/2023	**1,280**	**697**	**—**	**4**
,				
Balance as at 1/1/2022	**1,232**	**676**	**—**	**—**
Additions				
Purchases	2,349	231	—	5
Realised gains[1]	317	87	—	—
Transfer from other levels	291	250	—	1
Other additions[2]	38	7	—	—
Disposals				
Sales	(1,692)	(114)	—	—
Repayment	—	(8)	—	—
Realised losses[1]	(75)	(44)	—	—
Transfer to other levels	(147)	—	—	—
Other disposals	(10)	(6)	—	—
Balance as at 31/12/2022	**2,303**	**1,079**	**—**	**6**

1 In the income statement and shareholders' equity.
2 Also including changes in the group of companies included in consolidation.

The decline in Level 3 financial assets held for trading is mainly due to the disposal and realisation of Level 3 instruments combined with a realised net loss.

The following table shows the changes in the financial liabilities allocated to Level 3 in the fair value hierarchy:

€ millions	FINANCIAL LIABILITIES HELD FOR TRADING	FINANCIAL LIABILITIES AT FVTPL	HEDGING DERIVATIVES
Balance as at 1/1/2023	**1,897**	**283**	**—**
Additions			
Sales	148	—	—
Issues	165	101	—
Realised losses[1]	127	18	—
Transfer from other levels	275	22	5
Other additions[2]	46	1	—
Disposals			
Buy-backs	(472)	(16)	—
Repayment	(30)	(56)	—
Realised gains[1]	(333)	(6)	—
Transfer to other levels	(540)	(101)	—
Other disposals	(17)	(2)	—
Balance as at 31/12/2023	**1,266**	**244**	**5**
Balance as at 1/1/2022	**1,161**	**395**	**—**
Additions			
Sales	652	—	—
Issues	180	46	—
Realised losses[1]	193	1	—
Transfer from other levels	626	49	—
Other additions[2]	25	2	—
Disposals			
Buy-backs	(307)	(37)	—
Repayment	(49)	(32)	—
Realised gains[1]	(228)	(33)	—
Transfer to other levels	(323)	(108)	—
Other disposals	(33)	—	—
Balance as at 31/12/2022	**1,897**	**283**	**—**

1 In the income statement and shareholders' equity.
2 Also including changes in the group of companies included in consolidation.

The decline in Level 3 instruments within financial liabilities held for trading is largely due to buybacks coupled with a net gain. In addition, there are net transfers to other levels that are primarily attributable to derivative instruments in equities, foreign exchange and interest rates. These result from the regular review of the fair value levels determined and the materiality of individual non-observable parameters.

Other Information (Continued)

80 Fair values of financial instruments compliant with IFRS 7

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It is assumed in this context that the transaction is conducted on the principal market for the instrument or the most advantageous market to which the Bank has access.

The calculation of the fair value for performing loans is explained to begin with. The fair value of loans is calculated as the sum total of the discounted, risk-adjusted anticipated cash flows discounted on the basis of the swap curve. Cash flows are determined on the basis of the conditions of the loan agreement (interest and redemption), whereby rights of termination are taken into account. In this context, the anticipated, risk-adjusted cash flows are based on the survival probability and the loss given default. The survival probability is determined on the basis of the risk-neutral probability of default, while the proceeds upon realisation are determined on the basis of the internal loss given default parameters. The risk-neutral probability of default is determined on the basis of the internally calculated multi-year probability of default covering the lifetime of the financial instrument (as real-world probability of default), the market risk premium and the correlation between the respective loan and the general market risk. The market risk premium represents a factor used to cover the difference between the real-world probability of default and the market's return expectations for the risk assumed. The loan portfolio is divided into five sectors (sovereign loans, loans to banks, corporate loans, syndicated loans and retail loans) in order to take account of the specific features of each sector. For each of these sectors with the exception of retail loans, the market risk premium is first determined on the basis of a portfolio of liquid CDS prices specific to the respective sector. Only for retail loans is the market risk premium derived from the market risk premiums for the other sectors due to the absence of a CDS market (except for syndicated loans). Furthermore, the fair value calculated by the model is calibrated in order to take account of the difference between this value and the fair value upon addition. This is in line with the assumption based on IFRS 13.58 according to which the transaction price reflects the fair value.

The proceeds upon realisation estimated by the Bank are taken as a basis to determine the fair value of non-performing loans. These already take account of the expected credit default. The maturities of the expected proceeds upon realisation are determined using model assumptions. These cash flows are discounted at a market interest rate in order to establish the fair value.

The fair value calculation for loans and receivables is built around the risk-neutral credit spread, which takes account of all relevant factors on the market. Further parameters besides the risk-neutral credit spread and the risk-free return on investment are not included. Provided the markets are liquid and no relevant market disruptions are evident, as is currently the case, the arbitrage between the markets on which credit risks are traded leads to a narrowing of the credit spreads. The CDS market adjusted by product-specific factors is thus defined as the relevant exit market for loans and receivables. Otherwise, the parameters used to determine the real-world probability of default (PD) and loss given default (LGD) are determined on the basis of internal procedures.

Levels are allocated based on a sensitivity analysis. This involves determining a range for the internal parameters when calculating the respective fair value, within which the internal parameters may fluctuate based on realistic assumptions. To date, in order to calculate the sensitivity, the internal parameter was replaced by the value with the highest deviation in the estimated range, and based on that figure the fair value was recalculated. As long as the deviation of the fair value determined using this method is insignificant compared with the originally determined fair value, the financial instrument is allocated to Level 2; otherwise, it is allocated to Level 3.

HVB Group uses the following methods for deriving the fair value levels for loans: a specific adjustment of the parameters (shift under a stress scenario) is simulated for the valuation parameters relating to credit risk (for example, PD, LGD, etc.) and the effects on the fair value are analysed. If the change in the valuation parameters for credit risk result in a significant change in the fair value, the loan concerned is allocated to Level 3 as the valuation parameters used for mapping credit risk are essentially not based on or derived from prices observable on the market.

Investments in joint ventures and associates are accounted for using the equity method, provided they are not of minor significance. Investments in non-consolidated companies and listed companies not accounted for using the equity method are normally carried at their fair value.

Quoted market prices are used for securities and derivatives traded on an exchange as well as for listed debt instruments. These instruments are allocated to Level 1. The fair value of the remaining securities is calculated as the net present value of anticipated future cash flows. The methods used to determine the fair value levels as described in the Note “Fair value hierarchy” are employed for this purpose.

The fair values of single-currency and cross-currency swaps and interest rate futures are calculated on the basis of discounted cash flows. In doing so, the market rates applicable for the remaining maturity of the financial instruments are applied. The fair value of forward exchange transactions is computed on the basis of current forward rates. Options are measured using price quotations or generally accepted models used to calculate the price of options. The common Black & Scholes model and the Bachelier model are used to measure simple European options. For more complex instruments, interest is simulated using term-structure models with the current interest rate structure as well as caps and swaption volatilities as parameters relevant for measurement. The disbursement structure of the equities or indexes for complex instruments is measured using either Black & Scholes or a stochastic volatility model with equity prices, volatilities, correlations and dividend expectations as parameters. The methods used to determine the fair value levels described in the Note “Fair value hierarchy” are employed for this purpose.

Please refer to the Note “Fair value hierarchy” for a description of the methods used to determine the fair value levels for unlisted derivatives.

For liabilities (deposits from banks and customers, and debt securities in issue, provided these are not listed), the anticipated future cash flows are discounted to the present value using current interest rates taking into account internally determined funding premiums. The funding premiums correspond to the parameters that the Bank uses when setting the prices for its own issues. These funding premiums represent internally determined parameters that are essential for determining the fair value; the other liabilities are allocated to Level 3 accordingly.

Other Information (Continued)

The fair values are calculated using the market information available at the reporting date as well as specific company valuation methods.

	CARRYING AMOUNT		FAIR VALUE	
€ billions	**2023**	**2022**	**2023**	**2022**
Assets				
Cash and cash balances	23.3	36.8	23.3	36.8
Financial assets held for trading	68.6	82.3	68.6	82.3
Financial assets at FVTPL	3.2	5.2	3.2	5.2
Financial assets at FVTOCI	9.3	9.8	9.3	9.8
Loans and receivables with banks (at cost)	19.6	23.3	19.7	22.9
Loans and receivables with customers (at cost)	154.5	154.9	152.9	159.1
of which finance lease receivables	0.4	0.6	0.4	0.6
Hedging derivatives	0.4	0.6	0.4	0.6
Total	**278.9**	**312.9**	**277.4**	**316.7**
Liabilities				
Deposits from banks	35.7	51.3	34.8	51.3
Deposits from customers	139.6	147.4	139.6	147.6
Debt securities in issue	34.3	31.1	32.5	28.4
Financial liabilities held for trading	48.5	64.3	48.5	64.3
Financial liabilities at FVTPL	4.7	4.8	4.7	4.8
Hedging derivatives	0.1	0.2	0.1	0.2
Total	**262.9**	**299.1**	**260.2**	**296.6**

	FAIR VALUE OBSERVED ON AN ACTIVE MARKET (LEVEL 1)		FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2)		FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3)	
€ billions	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Financial assets not carried at fair value in the balance sheet						
Cash and cash balances	—	—	23.3	36.8	—	—
Loans and receivables with banks (at cost)	4.0	2.0	14.8	18.7	0.9	2.2
Loans and receivables with customers (at cost)	11.7	8.4	58.3	71.6	82.9	79.1
of which finance leases	—	—	—	—	0.4	0.6
Financial liabilities not carried at fair value in the balance sheet						
Deposits from banks[1]	—	—	24.6	42.4	10.2	8.9
Deposits from customers	—	—	134.6	144.2	5.0	3.4
Debt securities in issue	17.1	14.0	6.8	6.4	8.6	8.0

1 Adjustment to previous year.

At HVB Group, the difference between the fair values and carrying amounts totals minus €1.5 billion for assets (previous year: €3.8 billion) and minus €2.7 billion for liabilities (previous year: minus €2.5 billion). The net balance of these amounts is minus €1.2 billion (previous year: €6.3 billion). When comparing the carrying amounts and fair values of hedged items, it should be noted that part of the hidden reserves/hidden liabilities has already been included in the hedge adjustment.

81 Disclosures regarding the offsetting of financial assets and liabilities

The following two tables separately show the recognised financial assets and financial liabilities that have already been netted in the balance sheet in accordance with IAS 32.42 together with the financial instruments that are subject to a legally enforceable master netting arrangement or similar arrangement but that do not satisfy the criteria for offsetting in the balance sheet.

Financial assets that are netted in the balance sheet or subject to a legally enforceable master netting arrangement or similar arrangement:

				AMOUNTS NOT RECOGNISED			
€ millions	FINANCIAL ASSETS (GROSS)	FINANCIAL LIABILITIES NETTED IN THE BALANCE SHEET (GROSS)	RECOGNISED FINANCIAL ASSETS (NET)	EFFECTS OF MASTER NETTING ARRANGEMENTS	FINANCIAL INSTRUMENTS AS COLLATERAL	CASH COLLAT-ERAL	NET AMOUNT
Derivatives[1]	233,034	(186,710)	46,324	(30,422)	(318)	(7,853)	7,731
Reverse repos[2]	10,706	(1,294)	9,412	—	(9,382)	—	30
Loans and receivables[3]	76,911	(2,438)	74,473	—	—	—	74,473
Total as at 31/12/2023	**320,651**	**(190,442)**	**130,209**	**(30,422)**	**(9,700)**	**(7,853)**	**82,234**
Derivatives[1]	308,263	(246,745)	61,518	(41,389)	(260)	(9,829)	10,040
Reverse repos[2]	11,726	—	11,726	—	(11,157)	—	569
Loans and receivables[3]	87,878	(3,994)	83,884	—	—	—	83,884
Total as at 31/12/2022	**407,867**	**(250,739)**	**157,128**	**(41,389)**	**(11,417)**	**(9,829)**	**94,493**

1 Derivatives are included in the balance sheet items “Financial assets held for trading” and “Hedging derivatives”.
2 Reverse repos are covered in the Notes “Loans and receivables with banks (at cost)” and “Loans and receivables with customers (at cost)” They are also included in financial assets held for trading at an amount of €1,237 million (previous year: €1,191 million).
3 Only relates to current accounts, cash collateral or pledged credit balances and other loans and receivables (including cumulative variation margins),as covered in the Notes “Loans and receivables with banks (at cost)” and “Loans and receivables with customers (at cost)”.

Financial liabilities that are netted in the balance sheet or subject to a legally enforceable master netting arrangement or similar arrangement:

				AMOUNTS NOT RECOGNISED			
€ millions	FINANCIAL LIABILITIES (GROSS)	FINANCIAL ASSETS NETTED IN THE BALANCE SHEET (GROSS)	RECOGNISED LIABILITIES (NET)	EFFECTS OF MASTER NETTING ARRANGEMENTS	FINANCIAL INSTRUMENTS AS COLLATERAL	CASH COLLAT-ERAL	NET AMOUNT
Derivatives[1]	231,112	(188,435)	42,677	(30,422)	(367)	(5,591)	6,297
Repos[2]	5,345	(1,294)	4,051	—	(3,911)	—	140
Liabilities[3]	109,136	(713)	108,423	—	—	—	108,423
Total as at 31/12/2023	**345,593**	**(190,442)**	**155,151**	**(30,422)**	**(4,278)**	**(5,591)**	**114,860**
Derivatives[1]	306,270	(247,760)	58,510	(41,389)	(357)	(8,061)	8,703
Repos[2]	3,245	—	3,245	—	(3,175)	—	70
Liabilities[3]	127,677	(2,979)	124,698	—	—	—	124,698
Total as at 31/12/2022	**437,192**	**(250,739)**	**186,453**	**(41,389)**	**(3,532)**	**(8,061)**	**133,471**

1 Derivatives are included in the balance sheet items “Financial liabilities held for trading” and “Hedging derivatives”.
2 Repos are covered in the Notes “Deposits from banks” and “Deposits from customers”. They are also included in financial liabilities held for trading at an amount of €198 million (previous year: €64 million).
3 Only relates to current accounts, cash collateral or pledged credit balances and other liabilities (including cumulative variation margins), as covered in the Notes “Deposits from banks” and “Deposits from customers”.

Other Information (Continued)

Compliant with IAS 32.42, financial assets and liabilities with the same counterparty are to be netted and the net amount recognised in the balance sheet if such netting of the amounts recognised at the present date is legally enforceable and the intention is to settle on a net basis during the normal course of business or to realise the asset and settle the liability simultaneously. The tables show a reconciliation from the gross amounts prior to netting via the offset amounts to the net amounts after netting for these offsets in the balance sheet. At HVB Group, the offsets in the balance sheet relate to transactions with central counterparties (CCPs), i.e. OTC derivatives (offset of positive and negative fair values that balance out at currency level) and the receivables and liabilities arising from reverse repos and repos concluded with the same central counterparty. At the same time, nettable receivables and liabilities repayable on demand with the same counterparties in the banking business are also offset in the balance sheet. In addition, cumulative changes in the fair value of derivatives on futures exchanges are netted with the cumulative variation margin payments.

The column "Effects of master netting arrangements" shows the financial instruments that are subject to a legally enforceable bilateral master netting arrangement or similar arrangement, but which are not netted in the balance sheet as they do not satisfy the IAS 32.42 netting requirements as described above. At HVB Group, this includes OTC derivatives and repo transactions with individual counterparties with which legally enforceable master netting arrangements have been concluded allowing an offset in the event of default.

In addition, collateral in the form of financial instruments and cash collateral pledged or received in this connection is presented in the tables. Furthermore, securities lending transactions shown off the balance sheet without cash collateral are not included in the above netting tables.

As part of credit risk management notably with regard to the counterparty risk arising from derivatives, netting arrangements are frequently concluded that, in the event of default by the counterparty, permit all derivatives with this counterparty to be netted and positive and negative fair values of the individual derivatives to be offset to create a net receivable. Such net receivables are normally secured by cash collateral to further reduce the credit risk. This involves the debtor of the net receivable transferring money to the creditor and pledging these cash balances. The amount of the cash collateral is adjusted at regular intervals to reflect the current amount of a potential net receivable, although a receivable from cash collateral provided can become a liability from cash collateral received and vice versa depending on the balance of the potential net receivable.

This cash collateral is shown separately as "Cash collateral and pledged credit balances" in the following notes: loans and receivables with banks (at cost), loans and receivables with customers (at cost), deposits from banks and deposits from customers.

82 Undiscounted cash flow

Compliant with IFRS 7.39, we are disclosing the residual maturities for non-derivative and derivative financial liabilities as well as for credit commitments and financial guarantees. The breakdown of residual maturities is based on the contractual due dates. These are crucial for determining the timing of payments. We have thus divided the contractually agreed, undiscounted payments into maturity buckets. The undiscounted cash flows shown here cannot be compared with the carrying amounts, as the latter are based on discounted cash flows.

At the same time, we have broken down the financial assets by residual maturity compliant with IFRS 7.39. These are financial assets that generate the cash flows used to settle financial liabilities.

In the following tables, we have divided the derivative and non-derivative financial assets and liabilities into maturity buckets. In doing so, all the financial liabilities have been allocated to the respective maturity bucket. The derivatives on financial assets held for trading and financial liabilities held for trading have been allocated to the shortest maturity bucket at their fair value. This reflects the fact that the derivatives are subject to an intention to sell in the short term and hence the maturities of the contractual undiscounted cash flows do not adequately reflect the timing of payments actually expected. The remaining financial instruments classified as financial assets held for trading and financial liabilities held for trading have been allocated to the earliest possible maturity bucket with their cash flows. Hedging derivatives used in hedge accounting are allocated to the applicable maturity bucket with their contractually agreed, undiscounted cash flows.

Credit commitments and financial guarantees have been allocated at their maximum amount to the shortest maturity bucket (repayable on demand) in which they can be utilised at the earliest.

For details on the presentation of the Bank’s liquidity management, please refer to the section entitled “Liquidity risk” in the Risk Report of the Combined Management Report.

Other Information (Continued)

Breakdown of financial assets and non-derivative and derivative financial liabilities by maturity bucket:

€ millions	REPAYABLE ON DEMAND	UP TO 1 MONTH	1 MONTH TO 3 MONTHS	3 MONTHS TO 1 YEAR	1 YEAR TO 5 YEARS	MORE THAN 5 YEARS	UNDATED
31/12/2023							
Financial assets							
Financial assets held for trading	366	2,947	330	2,452	3,369	7,510	3,668
Derivatives on financial assets held for trading	45,915	—	—	—	—	—	—
Financial assets at FVTPL	58	63	45	296	1,354	1,063	81
Financial assets at FVTOCI	—	193	155	1,606	6,328	2,001	—
Loans and receivables with banks (at cost)	5,049	3,324	959	2,978	5,391	2,895	—
Loans and receivables with customers (at cost)	13,541	7,192	5,507	16,131	64,220	86,535	—
of which finance lease receivables	7	13	32	115	232	21	—
Hedging derivatives	—	224	447	2,013	1,439	644	—
Non-derivative and derivative financial liabilities							
Deposits from banks	10,980	2,149	8,266	2,566	7,754	5,997	128
Deposits from customers	79,838	23,158	21,684	13,065	1,931	656	1
Debt securities in issue	19	3,711	1,148	2,246	17,071	15,985	—
Financial liabilities held for trading	—	296	239	678	1,893	237	521
Financial liabilities at FVTPL	—	152	66	619	3,042	1,117	—
Derivatives on financial liabilities held for trading	42,574	—	—	—	—	—	—
Hedging derivatives	—	223	446	2,006	1,286	298	—
Credit commitments and financial guarantees[1]	67,809	—	—	—	—	—	—
31/12/2022							
Financial assets							
Financial assets held for trading	297	4,837	735	2,689	4,087	7,619	4,050
Derivatives on financial assets held for trading	60,882	—	—	—	—	—	—
Financial assets at FVTPL	23	355	351	1,001	2,124	1,118	273
Financial assets at FVTOCI	—	328	107	2,214	6,910	1,348	—
Loans and receivables with banks (at cost)	7,940	4,866	2,107	3,359	4,351	1,404	981
Loans and receivables with customers (at cost)	16,101	8,700	14,429	13,633	55,684	76,831	313
of which finance lease receivables	8	20	62	177	388	39	—
Hedging derivatives	—	189	428	1,771	2,295	2,031	—
Non-derivative and derivative financial liabilities							
Deposits from banks	11,014	2,459	4,019	17,404	13,828	6,126	131
Deposits from customers	98,077	13,054	21,593	13,097	2,183	834	1
Debt securities in issue	20	106	4,828	2,283	12,805	17,981	—
Financial liabilities held for trading	—	1,768	2,214	862	1,571	1,172	1,801
Financial liabilities at FVTPL	—	153	92	448	2,514	1,000	521
Derivatives on financial liabilities held for trading	58,310	—	—	—	—	—	—
Hedging derivatives	—	204	532	1,836	2,072	1,471	—
Credit commitments and financial guarantees[1]	69,524	—	—	—	—	—	—

1 This item contains irrevocable credit commitments and financial guarantees (mainly loan guarantees and loan collateral guarantees). The previous-year figure has been adjusted.

83 Regulatory disclosure requirements (Disclosure Report)

HVB has been classified as a large subsidiary of UniCredit S.p.A. within the meaning of Article 13 (1) of the Capital Requirements Regulation (CRR), making it subject to the scope of the CRR (Article 13 (1) and Part 8 CRR) and certain extended regulatory disclosure requirements in accordance with Section 26a KWG (disclosure under Pillar III).

HVB discloses this information on a standalone basis in the form of a separate disclosure report. This report is produced on an annual basis as at 31 December and at each quarter-end during the year and published on www.hvb.de > About us > Investor Relations > Reports. The publication for the reporting date of 31 December is scheduled for shortly after the publication of the Annual Report. Interim reports should be published shortly after the publication of any financial reports and submission of the regulatory COREP report to the supervisory authorities responsible.

The disclosure of the remuneration policy and practices for those categories of staff whose professional activities have a material impact on the HVB's risk profile (known as "risk takers") required by Article 450 CRR in conjunction with Section 16 (1) of the German Remuneration Regulation for Institutions (Institutsvergütungsverordnung - InstitutV) takes the form of a separate report for HVB. This is drawn up once a year as at 31 December and published in the second quarter of the following year under: www.hvb.de > "About Us" > "Investor Relations" > "Corporate Governance" and under www.hvb.de> "About Us" > "Investor Relations" > "Reports".

84 Key capital ratios (based on IFRS)

HVB Group manages its economic and regulatory capital within the framework of its value-oriented overall bank management strategy. The yield expectations are calculated in accordance with the allocated capital principle that UniCredit employs across its entire organisation. As part of the dual control principle, both regulatory capital in the sense of committed core capital and internal capital are allocated to the operating segments. Both resources are expected to yield an appropriate return, which is derived from the expected return of the capital market. Please refer to the section of the Risk Report entitled "Implementation of overall bank management" for further details on the management of regulatory capital adequacy requirements and economic capital adequacy.

Supervisory ratios

The legal basis is provided by the EU Regulation on Prudential Requirements for Credit Institutions and Investment Firms (CRR), which came into force on 1 January 2014. The supervisory total capital ratio prescribed in the CRR II represents the percentage ratio between the own funds determined in accordance with Part 2 CRR II and the total amount of risk-weighted assets for counterparty risk, market risk and operational risk (corresponds to the risk-weighted asset equivalent of these risk positions). Under Article 92 CRR II, the Tier 1 capital ratio calculated as the ratio of Tier 1 capital to total risk-weighted assets determined as described above must be at least 6.0%.

Own funds underlying the calculation of the total capital ratio in accordance with CRR II consist of Tier 1 and Tier 2 capital. Under Article 92 CRR II, the total capital ratio calculated as the ratio of own funds to total risk-weighted assets must be at least 8.0%. HVB Group uses internal models in particular to measure market risk positions.

The following table shows own funds based on the approved consolidated financial statements and risk-weighted assets together with the risk equivalents for market risk positions and operational risk at the reporting date:

Other Information (Continued)

Own funds[1]:

€ millions	2023	2022
Tier 1 - Total core capital for solvency purposes	**17,564**	**17,760**
Shares of common stock	2,407	2,407
Additional paid-in capital, retained earnings, minority interest, own shares	14,315	14,605
Hybrid capital instruments (silent partnership certificates) without prorated interest	—	—
Other	(365)	(361)
Capital deductions	(493)	(591)
Additional Tier 1 capital	1,700	1,700
Tier 2 - Total supplementary capital for solvency purposes	**1,371**	**1,406**
Unrealised reserves in land and buildings and in securities	—	—
Offsetting reserves for general banking risks	—	—
Cumulative shares of preferred stock	—	—
Participating certificates outstanding	—	—
Subordinated liabilities	1,082	1,084
Value adjustment excess for A-IRB positions	291	324
Other	—	—
Capital deductions	(2)	(2)
Total own funds	**18,935**	**19,167**

1 Group of consolidated companies and principles of consolidation in accordance with banking supervisory regulations.

As in the previous year, we have not included in Tier 2 capital any unrealised reserves in accordance with Section 10 (2b) 1 Nos. 6 and 7 KWG in the version applicable until 31 December 2013.

Own funds are determined on the basis of IFRS figures in accordance with CRR II/CRD V using the consolidated accounting method.

The following table shows the reconciliation from the equity items shown in the balance sheet prepared in accordance with IFRS:

€ millions	COMMON EQUITY TIER 1 CAPITAL	ADDITIONAL TIER 1 CAPITAL	TIER 2 CAPITAL	TOTAL OWN FUNDS
Shown in IFRS balance sheet				
Shareholders' equity	18,240	1,700	—	19,940
Reconciliation to own funds compliant with the CRR				
Cumulative shares of preferred stock	—	—	—	—
Ineligible profit components	(1,725)	—	—	(1,725)
Ineligible minority interests under banking supervisory regulations	10	—	—	10
Diverging consolidation perimeters	(167)	—	—	(167)
Deduction of intangible assets	(2)	—	—	(2)
Hybrid capital recognised under banking supervisory regulations	—	—	—	—
Eligible portion of subordinated liabilities	—	—	1,080	1,080
Value adjustment excess (+) or shortfall (-) for A-IRB positions	—	—	291	291
Adjustments to CET1 due to prudential filters	(175)	—	—	(175)
Deductible deferred tax assets	(4)	—	—	(4)
Capital deductions which can alternatively be subject to a 1,250% risk weight	(5)	—	—	(5)
Transitional adjustments	—	—	—	—
Insufficient coverage for non-performing exposures	(100)	—	—	(100)
Other effects	(208)	—	—	(208)
Own funds compliant with CRR II	**15,864**	**1,700**	**1,371**	**18,935**

€ millions	2023 CRR II	2022 CRR II
Risk-weighted assets from		
on-balance-sheet counterparty risk positions	38,498	45,013
off-balance-sheet counterparty risk positions	12,626	13,117
other counterparty risk positions[1]	365	618
derivative counterparty risk positions	4,991	6,291
other risk exposure amounts[2]	472	665
Total credit risk-weighted assets	**56,952**	**65,704**
Risk-weighted asset equivalent for market risk positions	**4,306**	**7,757**
Risk-weighted asset equivalent for operational risk	**8,509**	**8,615**
Total risk-weighted assets	**69,767**	**82,077**

1 Primarily including repos and securities lending transactions.
2 Upon the introduction of the "Defaulted Assets Model", a lower RWA limit was imposed on HVB for default losses in the Retail/Corporates portfolio. If the calculated RWA are below the lower RWA limit for the default losses in the Retail/Corporates portfolio, the difference is shown in this item.

At the respective reporting dates, the key capital ratios (based on the approved consolidated financial statements) were as follows:

in %	2023 CRR II	2022 CRR II
CET1 capital ratio [Common Equity Tier 1 capital excluding hybrid capital/(credit risk-weighted assets + 12.5x market risk positions + 12.5x operational risk)]	22.7	19.6
Tier 1 capital ratio [Tier 1 capital/(credit risk-weighted assets + 12.5x market risk positions + 12.5x operational risk)]	25.2	21.6
Total capital ratio [Own funds/(credit risk-weighted assets + 12.5x market risk positions + 12.5x operational risk)]	27.1	23.4

Other Information (Continued)

85 Securities sale and repurchase and securities lending transactions by balance sheet item

€ millions	2023		2022	
	CARRYING AMOUNT	OF WHICH TRANSFERRED AS COLLATERAL	CARRYING AMOUNT	OF WHICH TRANSFERRED AS COLLATERAL
Financial assets held for trading	68,611	2,694	82,258	1,066
Financial assets at FVTPL	3,215	—	5,150	—
Financial assets at FVTOCI	9,252	1,980	9,837	1,407
Loans and receivables with banks (at cost)	19,566	—	23,339	—
Loans and receivables with customers (at cost)	154,477	—	154,875	—
Total	**255,121**	**4,674**	**275,459**	**2,473**

86 Contingent liabilities and other commitments

€ millions	2023	2022
Contingent liabilities[1]	29,722	29,629
Financial guarantees (guarantees and indemnities)	29,722	29,629
Other commitments	106,044	103,158
Irrevocable and revocable credit commitments with default risk	106,039	103,154
Other commitments	5	4
Total	**135,766**	**132,787**

1 Contingent liabilities are offset by contingent assets of the same amount.

The recognition of contingent liabilities from loan commitments was adjusted in the reporting period. In addition to irrevocable loan commitments, revocable loan commitments, which are generally subject to credit default risk, are also recognised.

A contingent liability exists if an outflow of economic resources is possible (IAS 37.28). The contractual obligation to pay out under the loan commitment granted is irrelevant in this respect. With regard to revocable loan commitments, which are generally subject to credit default risk, such an outflow of funds is possible, as only this subsequently leads to credit default risk.

Since revocable loan commitments, which are generally subject to credit default risk, are already included in the calculation of expected credit losses, it is consistent and contributes to increasing transparency if they are also included in the disclosure of contingent liabilities from loan commitments.

The change in recognition was made retrospectively. Therefore, in addition to irrevocable loan commitments, the revocable loan commitments which are generally subject to credit default risk are recognised as at 31 December 2022. The previous-year figure increased by €39,437 million, plus an other correction of €6,499 million, as a result of the change of method. As a result, the previous-year figure has changed to €103,154 million.

Financial guarantees and irrevocable/revocable credit commitments are shown at their nominal amount (maximum outflow) less provisions set aside for this purpose. Neither contingent liabilities nor other commitments contain any significant individual items. The financial guarantees listed here essentially reflect guarantees and indemnities that the Bank has granted on behalf of customers. Consequently, the Bank has a right of recourse against the customer (contracting party) should the guarantee or indemnity in question be utilised. An appropriate provision is set aside where such a customer's creditworthiness is doubtful. This takes account of the loss incurred by the Bank if the recourse claim against the contracting party is not considered fully realisable on account of the party's doubtful creditworthiness.

It is hard to anticipate the date at which the contingent liabilities and other commitments mentioned here will result in an outflow of funds. Credit commitments frequently serve as liquidity reserve for the beneficiary in particular, meaning that the amounts are not necessarily utilised at all and hence an outflow of funds is not certain. In terms of financial guarantees, it is important to note that these are conditional payment commitments so that the condition must be met before utilisation becomes possible (such as default on the guaranteed credit in the case of a credit guarantee or non-compliant delivery in the case of a delivery guarantee and other cases). Here, too, it is hard to assess whether and when this will be the case, as financial guarantees in particular are only ever utilised in exceptional circumstances entailing an outflow of funds.

Securities lending transactions are not recognised in the balance sheet as beneficial ownership remains with the lender. The Bank only becomes the legal owner of the borrowed securities which are returned to the lender when the lending transaction falls due. Obligations of €14,962 million (previous year: €8,725 million) to return securities from securities lending transactions are thus offset by borrowed securities of the same amount, which are not carried as assets on the assets side of the balance sheet.

In previous years HVB made use of the option to provide up to 15% of the annual contribution to the bank restructuring fund in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 12 of the German Bank Restructuring Fund Act (Restrukturierungsfondsgesetz – RStruktFG). These amount to €104 million at the reporting date (previous year: €104 million). Cash collateral was provided for these, which is disclosed as loans and receivables with customers. No new irrevocable payment commitments were issued in the reporting period.

In previous years HVB made use of the option to provide up to 30% of the annual contribution to the deposit guarantee scheme of German banks in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 5a (10) of the German Statute of the Deposit Guarantee Scheme (Statut des Einlagensicherungsfonds – SESF). These amount to €22 million at the reporting date (previous year: €22 million). Financial collateral was provided for these. No new irrevocable payment commitments were issued in the reporting period.

In previous years, HVB made use of the option to provide up to 30% of the annual contribution to the deposit guarantee scheme of German banks (Entschädigungseinrichtung deutscher Banken) in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 19 of the German Regulation on Financing the Deposit Guarantee Scheme (Entschädigungseinrichtungs-Finanzierungsverordnung – EntschFinV). These amount to €39 million at the reporting date (previous year: €39 million). Financial collateral was provided for these. No new irrevocable credit commitments were given in the reporting period.

Other Information (Continued)

HVB may incur losses from legal risks, the occurrence of which is greater than improbable but less than probable, and for which no provisions have been set aside. Such legal risks may result from negative developments in civil-law proceedings and the tendency for rulings to be made in favour of consumers or customers. The risk of loss that is assessed may prove to be too low or too high, depending on the outcome of the proceedings. HVB assumes that it will not be necessary to utilise the vast majority of the contingent liabilities from legal risks, meaning that the amounts are not representative of actual future losses. Such contingent liabilities from significant legal risks that can be estimated amount to €59 million at year-end 2023 after €64 million at year-end 2022.

To make fund constructions more marketable – in particular lease funds and (closed-end) KG real estate funds – we took on rental obligations or issued rental guarantees. Identifiable risks from such guarantees were taken into account by setting aside provisions.

Commitments for payments called on shares not fully paid up amounted to €5 million in the reporting year (previous year: €4 million) and similar obligations for shares in cooperatives totalled €1 thousand (previous year: €1 thousand). The Bank was not liable for any defaults on calls for payment under Section 22 (3 and 24) of the German Limited Companies Act (Gesetz betreffend die Gesellschaften mit beschränkter Haftung – GmbHG).

At the reporting date, we had unlimited personal liability from the ownership of shares in 59 partnerships (previous year: 60).

With a Statement of Responsibility dated 21 December 1993, HVB issued an undertaking to the State of Baden-Wuerttemberg (Ministry of Finance) to assume a liquidity provision obligation in the event of the sale, liquidation or bankruptcy of HVB Projekt GmbH.

UniCredit Bank GmbH is liable as a member of the deposit guarantee schemes in Germany within the scope of the valid provisions.

Contingent liabilities payable to related parties

€ millions	**2023**	**2022**
Non-consolidated affiliates	1,947	1,682
of which:		
UniCredit S.p.A.	1,335	1,009
sister companies	611	671
subsidiaries	1	2
Joint ventures	—	—
Associates	—	—
Other investees	106	86
Total	**2,053**	**1,768**

87 Statement of Responsibility

HVB ensures that, to the extent of its respective shareholding, the company set forth below is in a position to meet its contractual obligations except in the event of political risks:

Financial companies
UniCredit Leasing GmbH, Hamburg

To the extent that HVB's shareholding in the company is reduced in the future, HVB's commitment arising under the above Statement of Responsibility is also reduced for those contractual obligations of the company that are established only after the reduction of HVB's shareholding. If HVB is no longer a shareholder of the company listed above, its commitment under the above Statement of Responsibility ends on the date on which its shareholding was terminated for those contractual liabilities of the company that are established only after its shareholding was terminated.

HVB no longer provides a Statement of Responsibility for companies for which a Statement of Responsibility was provided in earlier annual reports but which no longer appear in the above list. The liabilities of these companies arising before the reduction or termination of the shareholding are only covered by such Statements of Responsibility that were provided before the reduction or termination of the shareholding in each case.

88 Disclosures regarding structured entities

A structured entity as defined in IFRS 12 is an enterprise (or an economically separate entity) that has been designed so that voting rights or similar rights are not the dominant factor in deciding who controls the entity. Structured entities are frequently characterised by restricted activities, a narrow, well-defined objective, insufficient equity or financing in tranches.

Structured entities may be consolidated or not consolidated, depending on whether HVB Group has control over the entity or not. Transactions involving structured entities can be divided into the following categories using the business model applied by HVB Group:

- ABS vehicles
- Repackaging vehicles
- Funding vehicles for customers
- Some investment funds
- Other structured entities

Financial instruments with unconsolidated structured entities

Financial instruments with unconsolidated structured entities encompass all contractual relationships from which HVB Group receives variable earnings and exposure to loss from the structured entities, but without gaining control over the structured entity. These might be equity and debt instruments, derivatives, liquidity facilities or guarantees.

Other Information (Continued)

ABS vehicles
HVB Group invests in ABS vehicles and uses ABS vehicles for its own securitisations. These vehicles buy loans or receivables and refinance themselves by issuing securities on the money or capital market. The securities are backed by the assets purchased. HVB Group can also provide finance for these vehicles in the form of liquidity facilities.

ABS vehicles used for own securitisations are fully consolidated in the consolidated financial statements and are not included in the unconsolidated structured entities shown here. This means that only such ABS vehicles in which HVB Group solely has an interest as an investor are classified as unconsolidated structured entities.

	2023	2022
Number of unconsolidated ABS vehicles (investor positions only)	191	198

Repackaging vehicles
Repackaging vehicles are used to offer customers specific securities and derivatives solutions. These vehicles buy assets (such as securities, loans and receivables, and derivatives) and restructure the cash flows from these assets by incorporating other instruments or securities. The vehicles refinance themselves by issuing custom-packaged securities or derivatives that meet the customer's demands. The funding is normally secured by the acquired assets.

	2023	2022
Number of unconsolidated repackaging vehicles	8	1
Aggregate total assets of unconsolidated repackaging vehicles (€ millions)	379	7
Nominal value of the securities issued by unconsolidated repackaging vehicles (€ millions)	379	7

Funding vehicles for customers
Customers use these vehicles as a source of funding. These funding vehicles buy current receivables or lease receivables from customers and refinance themselves mostly by issuing securities on the capital and money market (mostly commercial paper conduits). HVB Group can also provide financing for these vehicles in the form of liquidity facilities or other lending products. The majority of the vehicles listed below were set up by the customer or by HVB Group on behalf of the customer. These vehicles are not consolidated as HVB Group is not exposed to a majority of the variable income from the vehicles and has no possibility of influencing them.

	2023	2022
Number of unconsolidated funding vehicles for customers	50	51
Aggregate total assets of unconsolidated funding vehicles for customers (€ millions)	6,517	6,976
Nominal value of the securities issued by unconsolidated funding vehicles for customers (€ millions)	6,510	6,973

Some investment funds
Investment funds are classified as structured entities if they are not controlled by means of voting or similar rights. Investment funds invest in a range of assets and can also finance themselves with debt within the framework of their investment policies alongside the money provided by investors. Investment funds serve to achieve specifically defined investment goals.

HVB Group offers its customers investment funds under own and third party management and also itself invests in investment funds. We are also mandated by customers to keep shares in investment funds in securities accounts for third party account. Furthermore, HVB Group holds shares in investment funds in its own portfolio. These are mostly held in the held-for-trading portfolio and to a much smaller extent also in the portfolio at FVTPL. In addition, we offer typical banking services to investment funds, including derivative and financing solutions and deposit-taking operations.

The number and aggregated net asset value of investment funds show funds to which HVB Group has an exposure. Regarding the statement of the number of unconsolidated investment funds classified as structured entities, we have separately reported every special purpose entity to which HVB Group has an exposure.

	2023	2022
Number of unconsolidated investment funds classified as structured entities	568	685
of which managed by HVB Group	45	39
Aggregate net asset value (including minority interests) of the investment funds classified as structured entities (€ millions)	404,272	655,931
of which managed by HVB Group	1,925	2,321

With regard to the aggregate net asset value, it should be noted that our risk is only calculated in terms of the participating interest held, loans extended or derivatives issued as a proportion of the aggregate fund volume. A risk analysis is provided in the table under “Risks in connection with unconsolidated structured entities”.

Other structured entities
This category covers structured entities that cannot be assigned to any of the other categories. For the most part, HVB Group mainly performs lending activities under this category with structured entities set up by customers or by HVB Group on behalf of customers.

These entities are mostly lease vehicles that have only insufficient equity and are controlled economically by the lessee. Some of the lease vehicles were financed through syndicated loans.

	2023	2022
Number of other structured entities	6	7
Aggregate total assets (€ millions)	303	559

Other Information (Continued)

Risks in connection with unconsolidated structured entities

The following tables show the carrying amounts of the assets and liabilities together with the off-balance-sheet risk positions of HVB Group in connection with unconsolidated structured entities:

€ millions	2023				
	ABS VEHICLES (INVESTOR POSITIONS)	REPACKAGING VEHICLES	FUNDING VEHICLES FOR CUSTOMERS	SOME INVESTMENT FUNDS	OTHER STRUCTURED ENTITIES
Assets	**8,454**	**80**	**6,121**	**4,658**	**47**
Financial assets held for trading	19	80	—	1,780	—
Financial assets at FVTPL	23	—	—	27	—
Financial assets at FVTOCI	—	—	—	—	—
Loans and receivables with banks (at cost)	—	—	—	—	—
Loans and receivables with customers (at cost)	8,412	—	6,121	2,850	47
Hedging derivatives	—	—	—	—	—
Other assets	—	—	—	1	—
Liabilities	**187**	**7**	**60**	**1,419**	**59**
Deposits from banks	—	—	—	—	—
Deposits from customers	16	—	58	1,278	59
Debt securities in issue	—	—	—	11	—
Financial liabilities held for trading	169	5	—	129	—
Financial liabilities at FVTPL	—	—	—	—	—
Hedging derivatives	—	—	—	—	—
Other liabilities	1	2	—	1	—
Provisions	1	—	2	—	—
Off-balance-sheet positions	**121**	**—**	**3,959**	**41**	**1**
Irrevocable credit commitments and other commitments	121	—	3,959	39	1
Guarantees	—	—	—	2	—
Maximum exposure to loss	**8,575**	**80**	**10,080**	**4,699**	**48**

€ millions	2022				
	ABS VEHICLES (INVESTOR POSITIONS)	REPACKAGING VEHICLES	FUNDING VEHICLES FOR CUSTOMERS	SOME INVESTMENT FUNDS	OTHER STRUCTURED ENTITIES
Assets	**7,119**	**23**	**6,321**	**5,141**	**76**
Financial assets held for trading	—	23	—	2,559	—
Financial assets at FVTPL	25	—	—	26	—
Financial assets at FVTOCI	—	—	—	—	—
Loans and receivables with banks (at cost)	—	—	—	—	—
Loans and receivables with customers (at cost)	7,093	—	6,321	2,555	76
Hedging derivatives	—	—	—	—	—
Other assets	1	—	—	1	—
Liabilities	**271**	**5**	**83**	**1,269**	**27**
Deposits from banks	—	—	—	—	—
Deposits from customers	14	—	76	1,008	18
Debt securities in issue	—	—	—	11	—
Financial liabilities held for trading	256	3	5	250	—
Financial liabilities at FVTPL	—	—	—	—	—
Hedging derivatives	—	—	—	—	—
Other liabilities	1	2	—	—	—
Provisions	—	—	2	—	9
Off-balance-sheet positions	**106**	**—**	**3,367**	**44**	**7**
Irrevocable credit commitments and other commitments	106	—	3,367	43	5
Guarantees	—	—	—	1	2
Maximum exposure to loss	**7,225**	**23**	**9,688**	**5,185**	**83**

The maximum exposure to loss from unconsolidated structured entities arises from the assets and off-balance-sheet risk positions relating to structured entities. This view does not, however, reflect the economic risk, as the collateral received and hedging instruments are not included.

No financial or other support ("implicit support") was provided to unconsolidated structured entities during the reporting year without having a contractual obligation to do so. Neither are there any concrete plans to provide support to unconsolidated structured entities in future.

Sponsored unconsolidated structured entities

Structured entities are classified as sponsored by HVB Group, if HVB Group was materially involved in setting up the entities. HVB Group has sponsored structured entities without having a participating interest in these entities through financial instruments. Thus, HVB Group is not exposed to the economic risks arising from these structured entities.

We only generate income from structured entities without participating interests to a limited extent through financial instruments. Fee and commission income of €44 million (previous year: €18 million) from charges and management fees was generated during the reporting period on investment funds managed by the Bank, of which €29 million (previous year: €14 million) was passed on to third parties in trailer fees.

Other Information (Continued)

Consolidated structured entities
The biggest consolidated structured entity is the multi-seller conduit programme Arabella. Securities with a nominal value of €4,580 million (previous year: €4,683 million) were outstanding at 31 December 2023. The total assets of the multi-seller conduit Arabella Finance DAC at the reporting date amounted to €4,590 million (previous year: €4,710 million).

Contractual arrangements that oblige HVB Group to provide financial assistance to consolidated structured entities exist notably in the form of liquidity facilities. These may be drawn by the vehicles to bridge maturity mismatches between the assets acquired and the securities issued.

Financial or other support was provided to consolidated structured entities without a contractual obligation to do so ("implicit support"):
– Where the market conditions prevented the securities issued by the consolidated multi-seller conduit Arabella Finance DAC from being placed, HVB has acquired such issues. Without the purchases of the securities, HVB would have been required to provide liquidity facilities in the same amount to individual Elektra Purchase companies. At the reporting date, HVB Group held securities issued by Arabella Finance DAC with a nominal value of €1,896 million (previous year: €3,079 million) in its portfolio.
– Future support arrangements are planned as follows: HVB Group will continue to decide on a case-by-case basis whether to buy temporarily non-placeable securities issued by the consolidated multi-seller conduit Arabella Finance DAC or utilise the liquidity lines. Accordingly, the volume of securities to be acquired depends on the funding required, the prevailing market conditions and the above decision in each case.
– Both contractual financial and other support provided to consolidated structured entities without a contractual obligation to do so are not material for the consolidated financial statements, as these represent intra-group transactions.

89 Trust business

€ millions	2023	2022
Trust assets	**2,410**	**2,403**
Loans and receivables with banks	—	—
Loans and receivables with customers	310	382
Equity securities and other variable-yield securities	—	—
Bonds and notes	—	—
Participating interests	—	—
Property, plant and equipment	—	—
Other assets	—	—
Fund units held in trust	2,100	2,021
Remaining trust assets	—	—
Trust liabilities	**2,410**	**2,403**
Deposits from banks	310	382
Deposits from customers	2,100	2,021
Securitised liabilities	—	—
Other liabilities	—	—

90 Transfer of financial assets

Transferred financial assets are derecognised in accordance with the derecognition criteria set forth in IFRS 9 when substantially all the risks and rewards incident to ownership of the asset are transferred.

HVB Group has no continuing involvement in transferred and derecognised financial assets for which substantially the risks and rewards are neither retained nor transferred.

Transferred, non-derecognised financial assets

However, HVB Group conducts business transactions under which it transfers previously recognised financial assets in accordance with IFRS 9, but substantially retains all the risks and rewards associated with these assets, meaning that such assets are not derecognised. The recognised asset is simultaneously offset by an associated liability for the consideration received, which corresponds to recognition as a secured loan. HVB Group may not use these transferred, non-derecognised assets for other purposes.

Transactions of this type conducted by the Group relate primarily to genuine securities repurchase agreements (repos) and securities lending transactions.

The securities (transferred) under repo transactions (cash sale) continue to be carried and measured in the consolidated balance sheet because the Group as seller retains all the credit, share price, interest rate and currency risks associated with the assets and their performance. The payment received from the buyer for whom the transferred security serves as collateral is recognised as a repo liability payable to banks or customers, depending on the counterparty. Upon delivery of the securities, the unrestricted power of disposal passes to the buyer.

Where the corporate group acts as a lender of securities in securities lending transactions, the securities lent to counterparties continue to be carried in the consolidated balance sheet of the lender.

The transactions are conducted under the customary market terms for securities lending and repurchase agreements, under which the counterparty holds a contractual or customary right to resell or repledge the securities received.

At the same time, these transaction types also encompass such examples as the true sale securitisation transactions Rosenkavalier 2008, Rosenkavalier 2015, Rosenkavalier 2020 and Rosenkavalier 2022 (see the Note “Own securitisation”) carried out by HVB Group, under which non-derecognised securitised customer receivables indirectly serve as collateral for repurchase agreements with the ECB.

The following Note “Assets assigned or pledged as collateral for own liabilities” contains details of repo transactions, securities lending transactions and other transactions under which the financial assets transferred as collateral for own liabilities are not derecognised.

Other Information (Continued)

91 Assets assigned or pledged as collateral for own liabilities

Examples of own liabilities of HVB Group for which we provide collateral are special credit facilities provided by KfW and similar institutions, which we have passed on as loans in compliance with their conditions. In addition, collateral has been provided for cash borrowings under repurchase agreements on international money markets, for open market transactions with central banks and for securities lending transactions. As a seller under repurchase agreements, HVB Group has entered into sales and repurchase transactions for securities at a carrying amount of €26.0 billion (previous year: €20.6 billion) or transferred them to a collateral pool with the European Central Bank or GC Pooling. It is not always necessary for liabilities to exist in the latter instance. These securities continue to be shown under our assets, and the consideration received in return is stated under liabilities.

The following table shows the breakdown of assets provided as collateral for own liabilities:

€ millions	2023	2022
Financial assets held for trading	4,900	5,684
Financial assets at FVTPL	697	1,691
Financial assets at FVTOCI	3,066	4,254
Loans and receivables with banks (at cost)	5,530	1,673
Loans and receivables with customers (at cost)	17,621	21,080
Property, plant and equipment	—	—
Unrecognised repledged securities received:		
pledged securities from unrecognised securities lending transactions	11,359	5,455
pledged collateral received	6,969	6,902
Total	**50,142**	**46,739**

The collateral pledged from "Loans and receivables with customers (at cost)" relates to special credit facilities provided by KfW and similar institutions.

The assets pledged as collateral by HVB Group relate to the following own liabilities:

€ millions	2023	2022
Deposits from banks	38,299	34,068
Deposits from customers	1,103	376
Debt securities in issue	—	—
Financial liabilities held for trading	7,499	8,677
Financial liabilities at FVTPL	—	—
Contingent liabilities	44	—
Obligations to return non-expensed, borrowed securities	3,197	3,618
Total	**50,142**	**46,739**

Compliant with IFRS 7.14, we are disclosing the carrying amount of the financial assets that we provide as collateral. In addition, figures are disclosed showing the extent to which the collateral provided may be repledged or resold by the collateral assignee.

€ millions	2023	2022
Aggregate carrying amount of assets pledged as collateral	50,142	46,739
of which may be repledged/resold	8,954	7,307

92 Collateral received that HVB Group may resell or repledge

As the collateral taker under genuine repurchase agreements (repos) and collateral agreements for OTC derivatives, HVB Group has received collateral that it may resell or repledge at any time under customary market conditions without the collateral provider having to be in arrears. The fair value of the collateral received is €11.9 billion (previous year: €11.8 billion).

HVB Group has actually repledged or resold €7.0 billion of this amount (previous year: €6.9 billion), for which there is an obligation to return the same type, volume and quality of the collateral received.

The transactions that make it possible to use this collateral were conducted under customary market conditions for securities repurchase and lending transactions.

93 Information on relationships with related parties

Besides the relationships with consolidated affiliates, there are a number of transactions involving UniCredit S.p.A. and other affiliated but not consolidated UniCredit companies as a result of the integration of HVB Group into the UniCredit corporate group. The quantitative information in this regard can be found in the notes to the income statement and the notes to the balance sheet.

Within the UniCredit corporate group, HVB has been assigned the role of the group-wide centre of competence for the group-wide hedging of derivative positions of other members of the group. In this role, HVB acts as counterparty for derivative transactions conducted by UniCredit companies, among other things. For the most part, this involves hedging derivatives that are externalised on the market via HVB. Information regarding the exposure to UniCredit and its subsidiaries is provided in the notes to the respective balance sheet item.

Like other affiliates, HVB has outsourced IT activities to UniCredit S.p.A., Milan, a company that is affiliated with the Bank. The goal is to exploit synergies and enable the Bank to offer fast, high-quality IT services by means of a service level agreement. HVB incurred expenses of €503 million for these services in the reporting year (previous-year period: €480 million). This was offset by income of €39 million from services rendered and internal charges (previous-year period: €29 million). Moreover, software products worth €0.8 million were purchased from UniCredit S.p.A. (previous-year period: €1 million).

Furthermore, HVB Group has transferred certain back office activities to UniCredit S.p.A. In this context, the latter provides settlement services for HVB and other affiliates in line with a standard business and operating model. HVB Group incurred expenses of €123 million for these services including restructuring costs in the reporting period (previous-year period: €84 million).

Other Information (Continued)

Remuneration paid to members of the Executive Board and Supervisory Board:

€ thousands	SHORT-TERM COMPONENTS FIXED SALARY	SHORT-TERM COMPONENTS SHORT-TERM PERFORMANCE RELATED CASH REMUNERATION	LONG-TERM INCENTIVES LONG-TERM PERFORMANCE RELATED CASH REMUNERATION	LONG-TERM INCENTIVES SHARE-BASED REMUNERATION	TERMINATION BENEFITS	TOTAL
2023						
Members of the Executive Board[1] of UniCredit Bank GmbH	4,604	635	36	635	—	5,910
Members of the Supervisory Board of UniCredit Bank GmbH for Supervisory Board activities	845	—	—	—	—	845
Members of the Supervisory Board of UniCredit Bank GmbH for activities as employee representatives	508	45	—	—	—	553
Former members of the Executive Board[1] of UniCredit Bank GmbH and their surviving dependants	181	320	751	1,692	992	3,936
2022						
Members of the Management Board of UniCredit Bank AG	4,645	608	236	1,058	—	6,547
Members of the Supervisory Board of UniCredit Bank AG for Supervisory Board activities	836	—	—	—	—	836
Members of the Supervisory Board of UniCredit Bank AG for activities as employee representatives	481	43	—	—	—	524
Former members of the Management Board of UniCredit Bank AG and their surviving dependants	235	115	664	2,723	2,313	6,050

1 Until registration of the change of legal form (from UniCredit Bank AG to UniCredit Bank GmbH) on 15 December 2023: Members of the Management Board.

It is the task of the Bank's full Supervisory Board to decide on the total remuneration paid to the individual members of the Executive Board and to review the structure of the remuneration systems for the Executive Board. The full Supervisory Board receives assistance in this regard from the Remuneration Control Committee, which submits appropriate proposals to the full Supervisory Board. Appropriateness and sustainability are key criteria for the form and structure of the remuneration paid to the members of the Executive Board. The structure of remuneration is derived from the employment agreements with the members of the Executive Board. It has two components: a fixed salary and a variable element. The variable remuneration is normally granted in deferred tranches over several years in the form of cash and shares, with disbursement dependent upon defined corporate targets being achieved in the subsequent years.

Pension commitments for seven currently active members of the Executive Board and two members who resigned during the year are shown in the table alongside the direct remuneration. Of these members of the Executive Board, seven members took part in the employer-financed, fund-linked pension scheme for executives (known as AgfA) in 2023. The Bank will provide/has provided 35% of the fixed salary contributions. Overall, an amount of €2,293 thousand was paid in the reporting year for current and former members of the Executive Board (2022: €1,715 thousand).

Non-monetary remuneration and other fringe benefits are granted to members of the Executive Board to the usual extent. The amounts involved are included in the totals for fixed salary shown.

Remuneration paid to members of the Executive Board for positions on supervisory boards of UniCredit group companies is surrendered to HVB.

The provisions for pensions compliant with IFRS for former and retired members of the Executive Board of HVB and their surviving dependants (including the pension commitments transferred to HVB Trust Pensionsfonds AG) amounted to €127,216 thousand (previous-year period: €125,410 thousand).

The remuneration paid to retired members of the Executive Board and their surviving dependants amounted to €8,936 thousand in the reporting period after the transfer of the largest part of the pension commitments to HVB Trust Pensionsfonds AG (previous-year period: €9,238 thousand).

Share-based payments were granted to the members of the Executive Board under the Group Incentive Scheme in the reporting period as follows:

SHARES GRANTED TO MEMBERS OF THE EXECUTIVE BOARD[1] OF UNICREDIT BANK GMBH	2023	2022
Number of shares granted	49,443	84,133
Fair value on grant date (€)	18.148	9.251

1 Until registration of the change of legal form (from UniCredit Bank AG to UniCredit Bank GmbH) on 15 December 2023: Members of the Management Board.

For details of share-based payments, please refer to the disclosures in the Note "Operating costs", where the underlying UniCredit programmes are described.

The following table shows the payroll costs incurred for members of the Executive Board and Supervisory Board where these are not short-term components:

€ thousands	LONG-TERM INCENTIVES: DEFERRED CASH COMPONENT	LONG-TERM INCENTIVES: DEFERRED SHARE-BASED REMUNERATION	TERMINATION BENEFITS	TOTAL
2023				
Members of the Executive Board[1] of UniCredit Bank GmbH	1,107	927	2,293	4,327
Members of the Supervisory Board of UniCredit Bank GmbH for Supervisory Board activities	—	—	38	38
Former members of the Executive Board[1] of UniCredit Bank GmbH and their surviving dependants	939	1,119	23,889	25,947
2022				
Members of the Management Board of UniCredit Bank AG	1,605	1,674	1,715	4,994
Members of the Supervisory Board of UniCredit Bank AG for activities as employee representatives	—	—	37	37
Former members of the Management Board of UniCredit Bank AG and their surviving dependants	627	558	20,227	21,412

1 Until registration of the change of legal form (from UniCredit Bank AG to UniCredit Bank GmbH) on 15 December 2023: Members of the Management Board.

Loans and advances made to, and contingent liabilities and liabilities assumed for, related parties at the reporting date were as follows:

€ thousands	2023 LOANS AND RECEIVABLES	2023 CONTINGENT LIABILITIES[3]	2023 LIABILITIES	2022 LOANS AND RECEIVABLES	2022 CONTINGENT LIABILITIES	2022 LIABILITIES
Members of the Executive Board[1] and their related parties	1,560	75	3,263	4,711	123	3,144
Members of the Supervisory Board and their related parties	2,933	486	3,091	—	21	669
Members of the Group Executive Committee[2] and their related parties	—	—	21	—	—	125
Companies controlled by the persons listed above	—	—	—	—	—	—

1 Until registration of the change of legal form (from UniCredit Bank AG to UniCredit Bank GmbH) on 15 December 2023: Members of the Management Board.
2..Excluding members of the Executive Board and Supervisory Board of UniCredit Bank GmbH.
3..Irrevocable and revocable lending commitments are shown under contingent liabilities. The previous year was adjusted accordingly.

Other Information (Continued)

Members of the Executive Board, Supervisory Board and Group Executive Committee of UniCredit S.p.A. and their respective immediate family members are considered related parties.

Mortgage loans were granted to members of the Executive Board and the Supervisory Board as well as their immediate family members at interest rates of between 0.35% and 4.50% falling due in the period from 2024 to 2049. Furthermore, there were overdrafts of 14.82%.

All banking transactions involving the group of people listed were conducted at customary market terms with the usual collateral.

94 Fees paid to the independent auditors

The following table shows the breakdown of fees (excluding value-added tax) recorded as expense in the reporting period, as paid to the independent auditors KPMG AG Wirtschaftsprüfungsgesellschaft, for services provided for HVB Group:

€ millions	2023	2022
Fee for	**10**	**8**
Auditing of the financial statements	8	7
Other auditing services	2	1
Tax consulting services	—	—
Other services	—	—

In addition to the audit of the consolidated and annual financial statements, KPMG AG Wirtschaftsprüfungsgesellschaft audited the reporting package as at 31 December submitted to the auditor of the consolidated financial statements of UniCredit S.p.A. and conducted a review in each quarter. Furthermore, KPMG AG Wirtschaftsprüfungsgesellschaft conducted statutory and voluntary audits of annual financial statements for subsidiaries. In addition, KPMG AG Wirtschaftsprüfungsgesellschaft was engaged to conduct an audit pursuant to Section 89 (1) of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG) and provide other auditing services, also in connection with the offsetting of interim gains, and a maintenance activity.

95 Employees

AVERAGE NUMBER OF PEOPLE EMPLOYED BY US	2023	2022
Employees (excluding trainees)	11,428	12,259
Full-time	8,073	8,652
Part-time	3,355	3,607
Trainees	196	228

	WOMEN	MEN	2023	2022
LENGTH OF SERVICE OF EMPLOYEES in %	(EXCLUDING TRAINEES)		TOTAL	TOTAL
31 years or more	28.5	20.1	24.6	22.6
from 21 years to less than 31 years	36.0	26.7	31.6	33.6
from 11 years to less than 21 years	17.5	21.1	19.2	19.5
less than 11 years	18.0	32.1	24.6	24.3

96 Offices

	1/1/2023	ADDITIONS NEW OPENINGS	REDUCTIONS CLOSURES	CONSOLI- DATIONS	CHANGE IN CONSOLIDATED GROUP	31/12/2023
Germany						
Baden-Wuerttemberg	14	—	1	—	—	13
Bavaria	247	—	10	14	(17)	206
Berlin	6	—	1	—	—	5
Brandenburg	5	—	—	—	—	5
Bremen	1	—	—	—	—	1
Hamburg	16	—	—	2	(1)	13
Hesse	12	—	—	—	—	12
Lower Saxony	11	—	—	—	—	11
Mecklenburg-Western Pomerania	3	—	—	—	—	3
North Rhine-Westphalia	8	—	—	—	—	8
Rhineland-Palatinate	12	—	1	—	—	11
Saarland	2	—	—	—	—	2
Saxony	6	—	—	—	—	6
Saxony-Anhalt	9	—	3	—	—	6
Schleswig-Holstein	28	—	4	—	—	24
Thuringia	5	—	—	—	—	5
Subtotal	**385**	**—**	**20**	**16**	**(18)**	**331**
Other regions						
Africa	—	—	—	—	—	—
Americas	5	—	—	—	—	5
Asia	4	—	2	—	—	2
Europe	36	—	1	—	(2)	33
Subtotal	**45**	**—**	**3**	**—**	**(2)**	**40**
Total	**430**	**—**	**23**	**16**	**(20)**	**371**

Other Information (Continued)

97 List of holdings

The separate list of holdings drawn up in compliance with Section 313 (2) HGB, contains all the affiliates, joint ventures and associates broken down by whether they are included in the consolidated financial statements or not. The list also includes selected holdings pursuant to Section 271 (1) HGB and structured entities included in the consolidated financial statements, with and without an HVB shareholding.

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	SHARE OF CAPITAL in % OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/(LOSS) thousands
1 Controlled companies						
1.1 Controlled by voting rights						
1.1.1 Consolidated subsidiaries						
1.1.1.1 Banks and financial institutions						
UniCredit Leasing Finance GmbH	Hamburg	100.0	100.0	EUR	160,013	1
1.1.1.2 Other consolidated subsidiaries						
Argentaurus Immobilien-Vermietungs- und Verwaltungs GmbH 3)	Munich	100.0	100.0	EUR	793	18,436
BIL Leasing-Fonds Verwaltungs-GmbH	Grünwald	100.0	100.0	EUR	25	5
GEMMA Verwaltungsgesellschaft mbH & Co. Vermietungs KG 3)	Munich	98.7	98.7	EUR	23,267	982
H.F.S. Immobilienfonds GmbH	Munich	100.0	100.0	EUR	26	1
H.F.S. Leasingfonds Deutschland 7 GmbH & Co. KG 3)	Munich	99.4	99.4	EUR	(7,340)	(52)
H.F.S. Leasingfonds GmbH	Grünwald	100.0	100.0	EUR	275	249
HVB Immobilien AG 3)	Munich	100.0	-	EUR	86,644	2.1
HVB Projekt GmbH 3)	Munich	100.0	90.0	EUR	76,253	1
HVB Tecta GmbH 3)	Munich	100.0	94.0	EUR	1,751	1
HVB Verwa 4 GmbH 3)	Munich	100.0	-	EUR	10,358	2.2
HVB Verwa 4.4 GmbH 3)	Munich	100.0	100.0	EUR	10,025	1
Monnet 8-10 S.à r.l.	Luxembourg	100.0	-	EUR	46,098	17,702
NF Objekt FFM GmbH 3)	Munich	100.0	100.0	EUR	125	1
Omnia Grundstücks-GmbH & Co. Objekt Haidenauplatz KG 3)	Munich	100.0	94.0	EUR	26	20
Othmarschen Park Hamburg GmbH & Co. Gewerbepark KG 3)	Munich	100.0	100.0	EUR	(44,083)	-
Rolin Grundstücksplanungs- und -verwaltungs-gesellschaft mbH	Munich	100.0	100.0	EUR	(528)	(88)
Structured Invest Société Anonyme	Luxembourg	100.0	-	EUR	16,069	6,777
T & P Frankfurt Development B.V. 4)	Amsterdam	100.0	100.0	EUR	(5,865)	(6)
T & P Vastgoed Stuttgart B.V. 4)	Amsterdam	87.5	87.5	EUR	(15,491)	1
TERRENO Grundstücksverwaltung GmbH & Co. Entwicklungs- und Finanzierungsvermittlungs KG 3)	Munich	75.0	75.0	EUR	(268,640)	-
UniCredit Beteiligungs GmbH 3)	Munich	100.0	-	EUR	1,175	2.3
UniCredit Capital Markets LLC	New York	100.0	100.0	USD	211,392	21,552
UniCredit Direct Services GmbH 3, 7)	Munich	100.0	-	EUR	818	2.4
UniCredit Leasing GmbH 7)	Hamburg	100.0	-	EUR	352,027	2.5
UniCredit U.S. Finance LLC	Wilmington	100.0	-	USD	116,932	975
Vermietungsgesellschaft mbH & Co. Objekt MOC KG 3)	Munich	89.3	89.3	EUR	(95,656)	(9,969)
V.M.G. Vermietungsgesellschaft mbH	Munich	100.0	100.0	EUR	1,138	1
Wealth Management Capital Holding GmbH	Munich	100.0	-	EUR	20,475	2.6
WealthCap Entity Service GmbH	Munich	100.0	100.0	EUR	356	331
WealthCap Equity GmbH	Munich	100.0	100.0	EUR	1,296	796
WealthCap Equity Management GmbH	Munich	100.0	100.0	EUR	159	134

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
WealthCap Fonds GmbH	Munich	100.0	100.0	EUR	619	(121)
WealthCap Immobilien 1 GmbH & Co. KG	Munich	100.0	100.0	EUR	2,844	790
WealthCap Immobilien 2 GmbH & Co. KG	Munich	100.0	100.0	EUR	2,139	174
Wealthcap Immobilien 43 Komplementär GmbH	Munich	100.0	100.0	EUR	31	6
Wealthcap Immobilienankauf Komplementär GmbH	Munich	100.0	100.0	EUR	29	4
WealthCap Immobilienfonds Deutschland 36 Komplementär GmbH	Munich	100.0	100.0	EUR	138	112
WealthCap Immobilienfonds Deutschland 38 Komplementär GmbH	Munich	100.0	100.0	EUR	(82)	(107)
WealthCap Initiatoren GmbH	Munich	100.0	100.0	EUR	1,115	766
WealthCap Investment Services GmbH	Munich	100.0	90.0	EUR	4,000	[1]
WealthCap Investments, Inc.	Wilmington	100.0	100.0	USD	1,462	(61)
WealthCap Investorenbetreuung GmbH	Munich	100.0	100.0	EUR	155	[1]
WealthCap Kapitalverwaltungsgesellschaft mbH [7]	Grünwald	100.0	100.0	EUR	18,262	[1]
WealthCap Leasing GmbH	Grünwald	100.0	100.0	EUR	(382)	18
WealthCap Management Services GmbH	Munich	100.0	100.0	EUR	(5,362)	(1,745)
Wealthcap Objekt Stuttgart III GmbH & Co. KG	Munich	100.0	100.0	EUR	(5,832)	(7,719)
Wealthcap Objekt-Vorrat 35 GmbH & Co. KG	Munich	100.0	100.0	EUR	(25,857)	(25,367)
Wealthcap Objekt-Vorrat 37 GmbH & Co. KG	Munich	100.0	100.0	EUR	(14,611)	(14,540)
WealthCap PEIA Komplementär GmbH	Grünwald	100.0	100.0	EUR	(31)	(80)
WealthCap PEIA Management GmbH	Munich	100.0	94.0	EUR	(618)	(1,872)
WealthCap Real Estate Management GmbH	Munich	100.0	100.0	EUR	60	[1]
WealthCap Vorrats-2 GmbH	Munich	100.0	100.0	EUR	14	<1
Weicker S.à r.l.	Luxembourg	100.0	-	EUR	23,716	4,254
1.1.2 Non-consolidated subsidiaries [5]						
AGRUND Grundstücks-GmbH	Munich	90.0	90.0			
Altea Verwaltungsgesellschaft mbH & Co. Objekt I KG	Munich	100.0	100.0			
AMMS Komplementär GmbH i.L.	Grünwald	98.8	98.8			
Antus Immobilien- und Projektentwicklungs GmbH	Munich	90.0	90.0	EUR	(12,200)	950
ARRONDA Immobilienverwaltungs GmbH	Munich	100.0	100.0	EUR	(35,826)	950
Atlanterra Immobilienverwaltungs GmbH	Munich	90.0	90.0	EUR	(32,562)	<1
A&T-Projektentwicklungs GmbH & Co. Potsdamer Platz Berlin KG	Munich	100.0	100.0	EUR	(37,252)	<1
Aufbau Dresden GmbH	Munich	100.0	100.0	EUR	(22,994)	<1
Bertram Projekt Unodecima Technikzentrum GmbH & Co. KG	Munich	94.0	94.0			
B.I. International Limited	George Town	100.0	100.0			
BIL Immobilien Fonds GmbH	Munich	100.0	100.0			
BIL Leasing-Fonds GmbH & Co VELUM KG (share of voting rights 66.7%, of which held indirectly 33.3%)	Grünwald	100.0	-			
Blue Capital Metro Amerika Inc.	Wilmington	100.0	100.0			
Delpha Immobilien- und Projektentwicklungs GmbH & Co. Großkugel Bauabschnitt Alpha Management KG	Munich	100.0	100.0	EUR	(22,882)	(3)
Delpha Immobilien- und Projektentwicklungs GmbH & Co. Großkugel Bauabschnitt Beta Management KG	Munich	100.0	100.0	EUR	(53,483)	(6)
Delpha Immobilien- und Projektentwicklungs GmbH & Co. Großkugel Bauabschnitt Gamma Management KG	Munich	100.0	100.0	EUR	(59,515)	(22)
Food & more GmbH	Munich	100.0	-	EUR	100	[2,7]
Golf- und Country Club Seddiner See Immobilien GmbH	Munich	100.0	100.0	EUR	(15,507)	-
Großkugel Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0	EUR	(3,354)	[1]
Grundstücksaktiengesellschaft am Potsdamer Platz (Haus Vaterland)	Munich	98.2	98.2	EUR	4,495	[1]

Other Information (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
H.F.S. Immobilienfonds Deutschland 10 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 11 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 12 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 15 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 16 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 4 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 8 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 9 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Europa 3 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Zweitmarktfonds Deutschland 1 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Zweitmarktfonds Deutschland 2 Komplementär GmbH	Grünwald	100.0	100.0			
Hofgarten Real Estate B.V. (share of voting rights 50.5%, of which held indirectly 50.5%)	Amsterdam	47.2	47.2	EUR	(49,338)	(2)
HVB Export Leasing GmbH	Munich	100.0	-			
HVB Hong Kong Limited	Hong Kong	100.0	-	USD	3,135	(20)
HVB London Investments (AVON) Limited	London	100.0	-			
HVB Secur GmbH	Munich	100.0	-	EUR	126	[2.8]
HVBFF Internationale Leasing GmbH	Munich	100.0	100.0			
HVBFF Leasing-Fonds Verwaltungs GmbH	Munich	100.0	100.0			
HVBFF Objekt Beteiligungs GmbH	Munich	100.0	100.0			
Landos Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0			
Life Britannia Management GmbH	Grünwald	100.0	100.0			
Life Management Erste GmbH	Munich	100.0	100.0	EUR	24	[1]
Life Management Zweite GmbH	Grünwald	100.0	100.0	EUR	26	[1]
Life Verwaltungs Erste GmbH	Munich	100.0	100.0			
Life Verwaltungs Zweite GmbH	Grünwald	100.0	100.0			
Motion Picture Production GmbH	Grünwald	51.2	51.2			
Omnia Grundstücks-GmbH	Munich	100.0	100.0	EUR	26	[1]
Omnia Grundstücks-GmbH & Co. Betriebs KG	Munich	100.0	94.0			
Othmarschen Park Hamburg GmbH & Co. Centerpark KG	Munich	100.0	100.0	EUR	(18,942)	-
Othmarschen Park Hamburg Wohn- und Gewerbepark GmbH	Munich	100.0	100.0	EUR	102	[1]
Projekt-GbR Kronstadter Straße München	Munich	75.0	75.0	EUR	(5,691)	(1)
Quinterra Gesellschaft für Immobilienverwaltung mbH	Munich	100.0	100.0	EUR	26	[1]
Redstone Mortgages Limited	London	100.0	-			
Roncasa Immobilien-Verwaltungs GmbH	Munich	100.0	100.0	EUR	(31,420)	950
Simon Verwaltungs-Aktiengesellschaft i.L.	Munich	<100,0	-	EUR	2,906	(15)
Sirius Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0	EUR	(143,835)	[1]
Solos Immobilien- und Projektentwicklungs GmbH & Co. Sirius Beteiligungs KG	Munich	100.0	100.0	EUR	(59,906)	-
Spree Galerie Hotelbetriebsgesellschaft mbH	Munich	100.0	100.0	EUR	249	[1]
TERRENO Grundstücksverwaltung GmbH	Munich	75.0	75.0			

		SHARE OF CAPITAL in %				
NAME	REGISTERED OFFICE	TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
TERRENO Grundstücksverwaltung GmbH & Co. Objektgesellschaft Grillparzerstraße KG	Munich	75.0	-	EUR	(3,002)	(3)
Terronda Development B.V.	Amsterdam	100.0	100.0	EUR	(14,933)	3
VCI Volta Center Immobilienverwaltungs GmbH	Munich	100.0	100.0	EUR	(16,347)	950
WealthCap Aircraft 27 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Canadian Management Inc.	Toronto	100.0	100.0			
WealthCap Equity Sekundär GmbH	Munich	100.0	100.0			
Wealthcap Erneuerbare Energien 2 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Europa Erste Immobilien - Objekte Niederlande - Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Europa Immobilien Fünfte Objekte Österreich Komplementär GmbH	Munich	100.0	100.0			
WealthCap Europa Immobilien Siebte Objekte Österreich Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Fondsportfolio Immobilien International 1 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Fondsportfolio Private Equity 25 GmbH & Co. geschlossene Investment KG	Grünwald	100.0	100.0			
Wealthcap Fondsportfolio Private Equity 26 GmbH & Co. geschlossene Investment KG	Grünwald	100.0	100.0			
WealthCap Immobilien Deutschland 39 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien Deutschland 47 GmbH & Co. geschlossene Investment KG	Munich	100.0	100.0			
WealthCap Immobilien Nordamerika 16 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilien Nordamerika 17 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilien Services GmbH	Munich	100.0	100.0	EUR	50	[1]
WealthCap Immobilien 40 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilien 41 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 42 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 44 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 46 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 47 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilienfonds Deutschland 37 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Los Gatos 121 Albright Way GP, Inc.	Wilmington	100.0	100.0			
WealthCap Management, Inc.	Wilmington	100.0	100.0			
WealthCap Mountain View GP, Inc.	Atlanta	100.0	100.0			
Wealthcap Objekt Dresden Komplementär GmbH	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 13 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 20 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 20 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 25 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 25 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 36 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 40 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 41 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 42 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 43 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Portfolio 3 Komplementär GmbH	Grünwald	100.0	100.0			

Other Information (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
Wealthcap Portfolio 4 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Portfolio 5 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Portfolio 6 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 19 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 20 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 21 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 22 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Private Equity 23 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Private Equity 24 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Private Equity 25 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Private Equity 26 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Real Estate GmbH	Munich	100.0	100.0			
WealthCap Real Estate Komplementär GmbH	Munich	100.0	100.0			
WealthCap Real Estate Sekundär GmbH	Munich	100.0	100.0			
WealthCap SachWerte Portfolio 2 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Spezial Büro 6 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Spezial Büro 7 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Spezial Immobilien 9 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Spezial Portfolio Immobilien 1 Komplementär SARL	Luxembourg-Findel	100.0	100.0			
Wealthcap Spezial Portfolio Private Equity 1 Komplementär SARL	Luxembourg-Findel	100.0	100.0			
Wealthcap Spezial Wohnen 1 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial 3 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial 4 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial 5 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial-AIF 1 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Stiftungstreuhand GmbH	Munich	100.0	100.0			
WealthCap USA Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Zweite Europa Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap ZweitmarktWerte Immobilien 4 Komplementär GmbH	Munich	100.0	100.0			
WealthCap ZweitmarktWerte 5 GP S.à r.l.	Senningerberg	100.0	100.0			
WealthCap 39 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap 45 Komplementär GmbH	Munich	100.0	100.0			

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in %	CURRENCY	SUBSCRIBED CAPITAL thousands
1.2. Fully consolidated structured entities with or without shareholding				
Arabella Finance DAC	Dublin	—	EUR	< 1
BARD Engineering GmbH	Emden	—	EUR	100
BARD Holding GmbH	Emden	—	EUR	25
Elektra Purchase No. 28 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 31 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 32 S.A. – Compartment 1	Luxembourg	—	EUR	31
Elektra Purchase No. 33 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 350 DAC	Dublin	—	EUR	< 1

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in %	CURRENCY	SUBSCRIBED CAPITAL thousands
Elektra Purchase No. 36 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 37 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 38 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 43 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 46 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 54 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 56 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 69 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 71 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 74 DAC	Dublin	—	EUR	< 1
Elektra Purchase No. 79 DAC	Dublin	—	EUR	< 1
H.F.S. Leasingfonds GmbH & Co. Deutschland 8 KG, Ebersberg (held indirectly)[6.1]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 9 KG, Ebersberg (held indirectly)[6.2]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 10 KG, Ebersberg (held indirectly)[6.3]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 11 KG, Ebersberg (held indirectly)[6.4]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 12 KG, Ebersberg (held indirectly)[6.5]	Ebersberg	0.1	EUR	—
Ice Creek Pool No. 1 DAC	Dublin	—	EUR	< 1
Ice Creek Pool No. 3 DAC	Dublin	—	EUR	< 1
Ice Creek Pool No. 5 DAC	Dublin	—	EUR	< 1
PaDel Finance 01 DAC	Dublin	—	EUR	< 1
Rosenkavalier 2008 GmbH	Frankfurt am Main	—	EUR	25
Rosenkavalier 2015 UG	Frankfurt am Main	—	EUR	8
Rosenkavalier 2020 UG	Frankfurt am Main	—	EUR	3
Rosenkavalier 2022 UG	Frankfurt am Main	—	EUR	3
Wealthcap Spezial-AIF-SV Büro 8	Grünwald	—	EUR	—

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in %		CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
		TOTAL	OF WHICH HELD INDIRECTLY			
2 Joint ventures						

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in %		CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
		TOTAL	OF WHICH HELD INDIRECTLY			
3. Associates						
3.1 Associates valued at equity						
Comtrade Group B.V. [4)]	Rotterdam	21.1	-	EUR	134,768	12,011
3.2 Minor associates [5)]						
MOC Verwaltungs GmbH	Munich	23.0	23.0			
MOC Verwaltungs GmbH & Co. Immobilien KG	Munich	23.0	23.0	EUR	724	615

Other Information (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
4. Further holdings according to Section 271 (1) HGB[5]						
4.1. Banks and financial institutions						
AKA Ausfuhrkredit-Gesellschaft mbH [7)]	Frankfurt am Main	15.4	-	EUR	283,796	10,195
BBB Bürgschaftsbank zu Berlin-Brandenburg GmbH	Berlin	3.2	-	EUR	13,537	109
BGG Bayerische Garantiegesellschaft mbH für mittelständische Beteiligungen	Munich	10.5	-	EUR	62,542	883
Bürgschaftsbank Brandenburg GmbH	Potsdam	7.8	-	EUR	36,769	2,563
Bürgschaftsbank Hamburg GmbH	Hamburg	10.5	-	EUR	27,424	107
Bürgschaftsbank Mecklenburg-Vorpommern GmbH	Schwerin	9.2	-	EUR	17,504	153
Bürgschaftsbank Nordrhein-Westfalen GmbH - Kreditgarantiegemeinschaft -	Düsseldorf	0.6	-	EUR	41,490	1,205
Bürgschaftsbank Rheinland-Pfalz GmbH	Mainz	1.4	-	EUR	17,626	270
Bürgschaftsbank Saarland Gesellschaft mit beschränkter Haftung, Kreditgarantiegemeinschaft für den Handel, Handwerk und Gewerbe	Saarbrücken	1.3	-	EUR	4,672	246
Bürgschaftsbank Sachsen-Anhalt GmbH	Magdeburg	8.9	-	EUR	17,216	216
Bürgschaftsbank Sachsen GmbH (share of voting rights 5.4%)	Dresden	4.7	-	EUR	44,936	500
Bürgschaftsbank Schleswig-Holstein GmbH	Kiel	5.4	-	EUR	42,278	189
Bürgschaftsbank Thüringen GmbH	Erfurt	8.7	-	EUR	27,696	172
MCB Bank Limited	Lahore	>0	-	PKR	189,494,650	32,740,935
Niedersächsische Bürgschaftsbank GmbH	Hannover	3.0	-	EUR	35,022	2,328
Saarländische Investitionskreditbank AG	Saarbrücken	3.3	-	EUR	68,493	1,474
4.2. Other companies						
ABE Clearing S.A.S.	Paris	2.1	-	EUR	46,639	3,998
Acton GmbH & Co. Heureka II KG	Munich	8.9	-	EUR	78,719	(7,311)
Amstar Liquidating Trust (share of voting rights 0.0%)	New York	>0	>0			
Babcock & Brown Limited	Sydney	3.2	-			
BayBG Bayerische Beteiligungsgesellschaft mbH [8)]	Munich	22.5	-	EUR	264,128	5,263
Bayerischer BankenFonds GbR [8)]	Munich	25.6	-			
BIL Leasing-Fonds GmbH & Co. Altstadtsanierung Freiberg KG (share of voting rights 0.3%)	Grünwald	-	-	EUR	1,057	935
Bil Leasing-Fonds GmbH & Co Objekt Verwaltungssitz Bankenverband KG (share of voting rights 0.2%)	Grünwald	-	-			
BioM Aktiengesellschaft Munich Bio Tech Development	Planegg	8.5	-	EUR	2,731	(44)
Blue Capital Equity I GmbH & Co. KG i.L.	Munich	>0	>0			
Blue Capital Equity II GmbH & Co. KG i.L.	Munich	>0	>0	EUR	1,664	13
Blue Capital Equity III GmbH & Co. KG (share of voting rights >0%)	Munich	0.8	0.8	EUR	4,507	(590)
Blue Capital Equity IV GmbH & Co. KG	Munich	>0	>0	EUR	10,567	(923)
Blue Capital Equity IX GmbH & Co. KG (share of voting rights 0,6%)	Munich	0.7	0.7	EUR	3,166	162
Blue Capital Equity V GmbH & Co. KG (share of voting rights >0%)	Munich	0.1	0.1			
Blue Capital Equity VI GmbH & Co. KG	Munich	>0	>0	EUR	11,412	4,144
Blue Capital Equity VII GmbH & Co. KG	Munich	>0	>0	EUR	5,416	1,762
Blue Capital Equity VIII GmbH & Co. KG (share of voting rights >0%)	Munich	0.7	0.7	EUR	7,119	118
Blue Capital Metro Amerika Fund, L.P.	Wilmington	0.1	0.1	USD	93,242	4,177
Blue Capital Metropolitan Amerika GmbH & Co. KG	Munich	0.1	0.1	EUR	51,884	(20,184)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
Carlyle Partners V, L.P. (share of voting rights 0.0%)	Wilmington	>0	>0	EUR	2,615,490	365,328
Carlyle U.S. Equity Opportunity Fund, L.P. (share of voting rights >0%)	Wilmington	0.9	0.9	EUR	845,151	143,045
CLS Group Holdings AG	Lucerne	1.2	-	GBP	328,960	13,432
CME Group Inc.	Wilmington	>0	-	USD	26,878,700	2,691,000
Einkaufsgalerie Roter Turm Beteiligungs GmbH & Co. KG	Munich	>0	>0	EUR	5,720	291
Einkaufsgalerie Roter Turm Chemnitz GmbH & Co. KG	Munich	>0	>0	EUR	47,520	2,629
EURO Kartensysteme GmbH	Frankfurt am Main	6.0	-	EUR	12,641	199
Film & Entertainment VIP Medienfonds 4 GmbH & Co. KG	Grünwald	10.7	10.7	EUR	21,098	(1,290)
H.F.S. Immobilienfonds Bahnhofspassagen Potsdam GmbH & Co. KG	Munich	6.0	6.0	EUR	21,279	2,688
H.F.S. Immobilienfonds "Das Schloss" Berlin-Steglitz GmbH & Co. KG	Munich	6.0	6.0	EUR	132,536	119,759
H.F.S. Immobilienfonds Deutschland 10 GmbH & Co. KG	Munich	1.4	1.4	EUR	88,822	257,288
H.F.S. Immobilienfonds Deutschland 12 GmbH & Co. KG	Munich	3.9	3.9	EUR	80,875	2,776
H.F.S. Immobilienfonds Deutschland 15 GmbH & Co. KG	Munich	0.1	0.1	EUR	14,195	1,648
H.F.S. Immobilienfonds Deutschland 4 GmbH & Co. KG	Munich	0.2	0.2	EUR	(894)	(276)
H.F.S. Zweitmarktfonds Deutschland 1 GmbH & Co. KG	Grünwald	0.1	0.1	EUR	17,440	4,557
H.F.S. Zweitmarktfonds Deutschland 2 GmbH & Co. KG	Grünwald	>0	>0	EUR	79,713	15,143
HVBFF Life Britannia GmbH & Co Erste KG	Grünwald	>0	>0	EUR	1,976	(208)
HVB Trust Pensionsfonds AG [9] (share of voting rights 0.0%)	Munich	100.0	-	EUR	4,063	(247)
IGEPA Gewerbepark GmbH & Co Vermietungs KG	Fürstenfeldbruck	2.0	2.0	EUR	(17,190)	3,094
IPE Tank and Rail Investment 1 S.C.A.	Luxembourg	7.8	-	EUR	1,187	(220)
JBG/BC Investor, L.P.	Chevy Chase	0.5	0.5	EUR	70,944	15,598
Kepler Cheuvreux S.A. [7] (share of voting rights 8.3%)	Paris	10.0	-	EUR	115,383	26,422
Kreditgarantiegemeinschaft der freien Berufe Baden-Württemberg Verwaltungs-GmbH	Stuttgart	1.3	-			
Kreditgarantiegemeinschaft der Industrie, des Verkehrsgewerbes und des Gastgewerbes Baden-Württemberg Verwaltungs-GmbH	Stuttgart	2.6	-	EUR	1,300	-
Kreditgarantiegemeinschaft des bayerischen Gartenbaues GmbH	Munich	8.1	-			
Kreditgarantiegemeinschaft des bayerischen Handwerks GmbH	Munich	7.2	-	EUR	4,846	-
Kreditgarantiegemeinschaft des Handels Baden-Württemberg Verwaltungs-GmbH	Stuttgart	2.3	-	EUR	1,022	-
Kreditgarantiegemeinschaft des Handwerks Baden-Württemberg Verwaltungsgesellschaft mbH	Stuttgart	2.5	-	EUR	1,001	-
Kreditgarantiegemeinschaft des Hotel- und Gaststättengewerbes in Bayern GmbH	Munich	9.7	-	EUR	4,359	-
Kreditgarantiegemeinschaft für den Handel in Bayern GmbH	Munich	2.2	-	EUR	6,317	-
Kreditgarantiegemeinschaft in Baden-Württemberg Verwaltungs-GmbH	Stuttgart	5.1	-	EUR	1,023	-
Life GmbH & Co Erste KG	Munich	>0	>0	EUR	95,594	23,043
Life GmbH & Co. Zweite KG	Grünwald	>0	>0	EUR	53,514	(4,916)
LME Holdings Limited (share of voting rights 0.0%)	London	>0	-	USD	57,742	34,990
Martin Schmälzle Grundstücksgesellschaft Objekt Wolfsburg GmbH & Co. KG	Munich	>0	>0	EUR	15,711	-
MBG Mittelständische Beteiligungsgesellschaft Baden-Württemberg GmbH	Stuttgart	5.0	-	EUR	99,598	7,387
MBG Mittelständische Beteiligungsgesellschaft Hamburg mbH	Hamburg	13.6	-	EUR	5,602	306

Other Information (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
MBG Mittelständische Beteiligungsgesellschaft Rheinland-Pfalz mbH (share of voting rights 11.1%)	Mainz	9.8	-	EUR	17,273	571
MBG Mittelständische Beteiligungsgesellschaft Schleswig-Holstein mbH	Kiel	3.6	-	EUR	49,299	2,205
Mittelständische Beteiligungsgesellschaft Berlin-Brandenburg GmbH	Potsdam	11.6	-	EUR	26,407	1,061
Mittelständische Beteiligungsgesellschaft Mecklenburg-Vorpommern mbH	Schwerin	15.4	-	EUR	19,614	273
Mittelständische Beteiligungsgesellschaft Niedersachsen (MBG) mbH	Hannover	8.2	-	EUR	16,815	388
Mittelständische Beteiligungsgesellschaft Sachsen-Anhalt mit beschränkter Haftung	Magdeburg	12.7	-	EUR	25,378	704
Mittelständische Beteiligungsgesellschaft Sachsen mbH	Dresden	11.8	-	EUR	49,636	189
Mittelständische Beteiligungsgesellschaft Thüringen mbH	Erfurt	13.4	-	EUR	29,137	529
Motion Picture Production GmbH & Co. Erste KG (share of voting rights 0.1%)	Grünwald	>0	>0	EUR	8,315	(25)
Mühoga Münchner Hochgaragen Gesellschaft mit beschränkter Haftung [8)]	Munich	25.0	-	EUR	6,642	2,378
PICIC Insurance Ltd.	Karachi	>0	-			
ProAreal GmbH i. I.	Wiesbaden	10.0	-	EUR	(98,618)	(16)
REF IV Associates (Caymans) L.P. Acqua CIV S.C.S. (share of voting rights 0.0%)	Luxembourg	38.3	-			
Rocket Internet Capital Partners (Euro) SCS (share of voting rights 0.0%)	Luxembourg	4.4	-	EUR	717,587	(190,907)
Saarländische Kapitalbeteiligungsgesellschaft mit beschränkter Haftung (share of voting rights 8.8%)	Saarbrücken	8.7	-	EUR	7,903	39
Social Venture Fund GmbH & Co. KG (share of voting rights 0.0%)	Munich	9.6	-	EUR	626	(432)
Social Venture Fund II GmbH & Co. KG (share of voting rights 0.0%)	Munich	4.5	-	EUR	9,831	(273)
SwanCap FLP II SCSp [10)] (share of voting rights 37,5%)	Senningerberg	-	-	EUR	32	2,899
SwanCap FLP SCS [10)] (share of voting rights 37.5%)	Senningerberg	-	-	EUR	(25)	611
SwanCap TB II SCSp [11)] (share of voting rights 0.0%)	Senningerberg	>0	-	EUR	416	192
S.W.I.F.T. SC	La Hulpe	0.3	-	EUR	664,092	38,075
True Sale International GmbH	Frankfurt am Main	7.7	-	EUR	4,672	136
VISA Inc. (share of voting rights 0.0%)	Wilmington	>0	-	USD	38,733,000	17,273,000
WealthCap Aircraft 1 GmbH & Co. KG	Munich	>0	>0	EUR	16,729	(5,612)
WealthCap Aircraft 25 GmbH & Co. KG	Grünwald	>0	>0	EUR	5,845	373
WealthCap Aircraft 26 GmbH & Co. KG	Grünwald	>0	>0	EUR	15,371	1,744
Wealthcap Büro Spezial-AIF 6 GmbH & Co. geschlossene Investment KG	Munich	7.0	7.0			
Wealthcap Fondsportfolio Immobilien International 1 GmbH & Co. geschlossene Investment KG	Grünwald	0.2	0.2	EUR	5,588	(1,308)
WealthCap Fondsportfolio Private Equity 21 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	6,174	(3,103)
WealthCap Fondsportfolio Private Equity 22 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	859	(470)
Wealthcap Fondsportfolio Private Equity 23 GmbH & Co. geschlossene Investment KG	Grünwald	0.1	0.1			
Wealthcap Fondsportfolio Private Equity 24 GmbH & Co. geschlossene Investment KG	Grünwald	0.1	0.1			
WealthCap Immobilien Deutschland 38 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	117,848	20,714
WealthCap Immobilien Deutschland 39 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	155,271	21,638

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
WealthCap Immobilien Deutschland 40 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	80,933	7,386
WealthCap Immobilien Deutschland 41 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	40,073	5,752
Wealthcap Immobilien Deutschland 42 GmbH & Co. geschlossene Investment KG	Munich	>0	>0			
Wealthcap Immobilien Deutschland 44 GmbH & Co. geschlossene Investment KG	Munich	>0	>0			
Wealthcap Immobilien Deutschland 45 GmbH & Co. geschlossene Investment KG	Munich	1.6	1.6			
Wealthcap Immobilien Deutschland 46 GmbH & Co. KG	Munich	2.0	2.0	EUR	(146)	(166)
WealthCap Immobilienfonds Deutschland 30 GmbH & Co. KG	Munich	>0	>0	EUR	46,680	4,773
WealthCap Immobilienfonds Deutschland 31 GmbH & Co. KG (share of voting rights 0.1%)	Munich	>0	>0	EUR	36,942	1,785
WealthCap Immobilienfonds Deutschland 32 GmbH & Co. KG (share of voting rights 0.1%)	Munich	>0	>0	EUR	5,119	3,024
WealthCap Immobilienfonds Deutschland 33 GmbH & Co. KG	Munich	>0	>0	EUR	58,597	2,614
WealthCap Immobilienfonds Deutschland 34 GmbH & Co. KG (share of voting rights 0.1%)	Munich	>0	>0	EUR	40,809	2,619
WealthCap Immobilienfonds Deutschland 35 GmbH & Co. KG	Munich	>0	>0	EUR	125,892	5,456
WealthCap Immobilienfonds Deutschland 37 GmbH & Co. KG	Munich	>0	>0	EUR	62,921	2,429
WealthCap Immobilienfonds Donauwörth 1 GmbH & Co. KG	Munich	>0	>0	EUR	18,592	1,636
WealthCap Immobilienfonds Donauwörth 2 GmbH & Co. KG (share of voting rights 0.0%)	Munich	>0	>0	EUR	4,664	591
WealthCap Immobilien Nordamerika 16 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	9,879	(39,214)
WealthCap Immobilien Nordamerika 17 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	49,715	(3,348)
WealthCap Infrastructure Fund I GmbH & Co. KG	Munich	>0	>0	EUR	1,879	(218)
WealthCap Infrastruktur Amerika GmbH & Co. KG (share of voting rights 0.1%)	Grünwald	>0	>0			
WealthCap Leasing 1 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	30,005	1,641
WealthCap Leasing 2 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	29,298	1,437
WealthCap Leasing 3 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	28,687	1,516
WealthCap Leasing 4 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	27,482	1,312
WealthCap LebensWert 1 GmbH & Co. KG (share of voting rights 0.3%)	Grünwald	>0	>0	EUR	(1,139)	545
WealthCap LebensWert 2. GmbH & Co. KG (share of voting rights 0.1%)	Grünwald	>0	>0	EUR	2,871	1,947
WealthCap Life Britannia 2. GmbH & Co KG	Munich	>0	>0	EUR	(68)	4,745
WealthCap Life USA 4. GmbH & Co. KG	Grünwald	>0	>0	EUR	3,955	(12)
WealthCap Los Gatos 121 Albright Way L.P.	Wilmington	>0	>0	USD	61,494	(13,198)
WealthCap Mountain View I L.P. (share of voting rights 0.1%)	Atlanta	-	-	USD	10,003	(41,689)
WealthCap Objekt Berg-am-Laim GmbH & Co. KG	Munich	5.2	5.2	EUR	121,259	6,018
Wealthcap Objekt Berg-am-Laim II GmbH & Co. KG	Munich	10.1	10.1	EUR	84,576	910
Wealthcap Objekt Berlin I GmbH & Co. KG	Munich	10.1	10.1	EUR	40,575	1,254
WealthCap Objekt Berlin II GmbH & Co. KG	Munich	10.1	10.1	EUR	49,467	951
Wealthcap Objekt Berlin III GmbH & Co. KG	Munich	10.1	10.1	EUR	41,382	131
WealthCap Objekt Bogenhausen GmbH & Co. KG	Munich	>0	>0	EUR	132,593	2,566

Other Information (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
Wealthcap Objekt Dresden GmbH & Co. KG	Munich	10.1	10.1	EUR	59,320	(1,237)
Wealthcap Objekte Grasbrunn und Ismaning GmbH & Co. KG	Munich	10.1	10.1	EUR	(916)	1,837
WealthCap Objekt Essen GmbH & Co. KG	Munich	5.2	5.2	EUR	26,624	1,548
Wealthcap Objekt Essen II GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekte Südwest GmbH & Co. KG	Munich	5.1	5.1	EUR	64,877	2,832
WealthCap Objekt Frankfurt GmbH & Co. KG	Munich	5.2	5.2	EUR	46,984	1,036
Wealthcap Objekt Freiburg GmbH & Co. KG	Munich	10.1	10.1			
Wealthcap Objekt Fürstenfeldbruck GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Hackerbrücke GmbH & Co. KG	Munich	5.2	5.2	EUR	33,358	1,683
WealthCap Objekt Hamburg GmbH & Co. KG	Munich	10.1	10.1	EUR	21,172	97
WealthCap Objekt Hannover Ia GmbH & Co. KG	Munich	5.2	5.2	EUR	14,880	1,451
WealthCap Objekt Hannover Ib GmbH & Co. KG	Munich	5.2	5.2	EUR	3,663	248
WealthCap Objekt Hannover II GmbH & Co. KG	Munich	5.2	5.2	EUR	17,022	451
WealthCap Objekt Hufelandstraße GmbH & Co. KG	Munich	5.2	5.2	EUR	11,748	582
Wealthcap Objekt Ludwigsburg GmbH & Co. KG	Munich	10.1	10.1			
Wealthcap Objekt Mainz GmbH & Co. KG	Munich	10.1	10.1	EUR	(263)	(272)
Wealthcap Objekt Nürnberg GmbH & Co. KG	Munich	10.1	10.1			
Wealthcap Objekt Ottobrunn GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Riem GmbH & Co. KG	Munich	5.2	5.2	EUR	30,298	1,519
WealthCap Objekt Riem II GmbH & Co. KG	Munich	5.2	5.2	EUR	41,309	2,304
WealthCap Objekt Schwabing GmbH & Co. KG	Munich	5.2	5.2	EUR	29,251	1,718
WealthCap Objekt Sendling GmbH & Co. KG	Munich	5.2	5.2	EUR	59,044	2,405
WealthCap Objekt Stuttgart Ia GmbH & Co. KG	Munich	>0	>0	EUR	17,466	1,165
WealthCap Objekt Stuttgart Ib GmbH & Co. KG	Munich	>0	>0	EUR	19,733	1,194
WealthCap Objekt Stuttgart II GmbH & Co. KG	Munich	5.2	5.2	EUR	24,939	962
WealthCap Objekt Theresienhöhe GmbH & Co. KG	Munich	5.2	5.2	EUR	64,248	2,714
Wealthcap Objekt Trudering GmbH & Co. KG	Munich	10.2	10.2	EUR	(256)	(192)
Wealthcap Objekt Tübingen GmbH & Co. KG	Munich	0.1	0.1	EUR	14,778	951
WealthCap Photovoltaik 1 GmbH & Co. KG (share of voting rights 0.1%)	Grünwald	>0	>0	EUR	28,633	2,984
WealthCap Portfolio 3 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	31,114	7,270
Wealthcap Portfolio 4/5 GmbH & Co. KG	Grünwald	>0	>0	EUR	54,585	(47)
Wealthcap Portfolio 4 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0			
Wealthcap Portfolio 5 GmbH & Co. geschlossene Investment KG	Grünwald	0.2	0.2			
Wealthcap Portfolio 6 GmbH & Co. geschlossene Investment KG	Grünwald	0.2	0.2			
WealthCap Private Equity 10 GmbH & Co. KG	Munich	>0	>0	EUR	4,451	353
WealthCap Private Equity 11 GmbH & Co. KG	Munich	>0	>0	EUR	1,643	325
WealthCap Private Equity 12 GmbH & Co. KG	Grünwald	>0	>0	EUR	56,802	2,854
WealthCap Private Equity 13 GmbH & Co. KG	Grünwald	>0	>0	EUR	45,549	1,785
WealthCap Private Equity 14 GmbH & Co. KG	Grünwald	>0	>0	EUR	26,438	1,198
WealthCap Private Equity 15 GmbH & Co. KG (share of voting rights 0.1%)	Grünwald	>0	>0	EUR	10,844	1,161
WealthCap Private Equity 16 GmbH & Co. KG (share of voting rights 0.3%)	Grünwald	>0	>0	EUR	2,353	273
WealthCap Private Equity 17 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	13,316	795

NAME	REGISTERED OFFICE	SHARE OF CAPITAL in % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL thousands	NET PROFIT/ (LOSS) thousands
WealthCap Private Equity 18 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	9,513	580
WealthCap Private Equity 19 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	31,856	(310)
WealthCap Private Equity 20 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	9,155	(98)
WealthCap SachWerte Portfolio 1 GmbH & Co. KG	Grünwald	>0	>0	EUR	22,001	1,370
WealthCap SachWerte Portfolio 2 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	92,608	3,933
WealthCap Spezial-AIF 1 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	169,805	23,317
WealthCap Spezial-AIF 2 GmbH & Co. geschlossene Investment KG	Munich	5.2	5.2	EUR	79,250	5,739
WealthCap Spezial-AIF 3 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	257,916	29,752
WealthCap Spezial-AIF 4 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	151,895	(76)
WealthCap Spezial-AIF 5 GmbH & Co. geschlossene Investment KG	Munich	10.1	10.1	EUR	165,733	1,382
Wealthcap Spezial-AIF Büro 7 GmbH & Co. geschlossene Investment KG	Munich	>0	>0	EUR	98,573	8,072
Wealthcap Spezial-AIF Immobilien 9 GmbH & Co. geschlossene Investment KG	Munich	0.2	0.2			
Wealthcap Spezial Portfolio Immobilien 1 SCS SICAV-SIF	Luxembourg-Findel	>0	>0	EUR	1,391	(109)
Wealthcap Spezial Portfolio Private Equity 1 SCS SICAV-SIF	Luxembourg-Findel	>0	>0	EUR	4,330	(170)
WealthCap US Life Dritte GmbH & Co. KG (share of voting rights >0%)	Grünwald	0.1	0.1	EUR	2,786	92
Wealthcap Wohnen 1a GmbH & Co. KG	Munich	10.1	10.1	EUR	(405)	(409)
Wealthcap Wohnen 1b GmbH & Co. KG	Munich	10.1	10.1	EUR	25,173	100
Wealthcap Wohnen 1 GmbH & Co. KG	Munich	10.1	10.1	EUR	(906)	(640)
Wealthcap Wohnen Spezial-AIF 1 GmbH & Co. geschlossene Investment KG	Munich	>0	>0			
WealthCap Zweitmarkt 3 BASIS GmbH & Co. KG	Grünwald	>0	>0	EUR	30,813	(130)
WealthCap Zweitmarkt 3 PLUS GmbH & Co. KG	Grünwald	>0	>0	EUR	14,550	5,241
WealthCap ZweitmarktWerte Immobilien 4 GmbH & Co. KG	Munich	>0	>0	EUR	8,458	(39)
Wohnungsbaugesellschaft der Stadt Röthenbach a.d.Pegnitz mit beschränkter Haftung	Röthenbach a.d. Pegnitz	5.2	-	EUR	5,017	309

Exchange rates for 1 euro at the reporting date

Currency code according to the International Organisation for Standardisation (ISO code)

UK	1 EUR =	0.86905	GBP
Pakistan	1 EUR =	307.55736	PKR
USA	1 EUR =	1.105	USD

Other Information (Continued)

Notes and comments to the list of holdings

Percentages marked < or > are rounded up or down to one decimal place. Thus <100.0% corresponds, for example, to 99.99% or >0.0%, for example, to 0.01%.

1 Profit and loss transfer to shareholders and partners

2 UniCredit Bank GmbH has concluded profit and loss agreements with the following companies:

Company		Profit/(loss) transferred € thousands
2.1	HVB Immobilien AG, Munich	33,233
	of which relating to 2022	4,631
2.2	HVB Verwa 4 GmbH, Munich	(29)
2.3	UniCredit Beteiligungs GmbH, Munich	15,643
2.4	UniCredit Direct Services GmbH, Munich	5,755
	of which relating to 2022	175
2.5	UniCredit Leasing GmbH, Hamburg	28,465
	of which relating to 2022	21
2.6	Wealth Management Capital Holding GmbH, Munich	(118,517)
	of which relating to 2022	191
2.7	Food & more GmbH, Munich	(188)
	of which relating to 2022	137
2.8	HVB Secur GmbH, Munich	(7)

3 The exemption under Section 264b HGB or under Section 264 (3) HGB applies to the company.

4 Figures from the 2022 annual accounts are indicated for this consolidated company.

5 Where equity capital and net profit/loss are not stated, the information is omitted due to minor importance compliant with Section 286 (3) 1 No. 1 HGB.

6 Disclosures on structured companies with shareholdings included in the consolidated financial statements

6.1 Equity capital amounts to minus €3,540 thousand and the net profit/loss to minus €116 thousand.

6.2 Equity capital amounts to minus €3,425 thousand and the net profit/loss to minus €121 thousand.

6.3 Equity capital amounts to minus €2,768 thousand and the net profit/loss to minus €91 thousand.

6.4 Equity capital amounts to minus €2,230 thousand and the net profit/loss to minus €79 thousand.

6.5 Equity capital amounts to minus €3,057 thousand and the net profit/loss to minus €100 thousand.

7 Pursuant to Section 340a (4) (2) HGB: holdings in large corporations with a share of voting rights greater than 5 percent.

8 Despite a holding of more than 20%, UniCredit Bank GmbH has no significant influence over the company on account of the ownership structure and the voting patterns to date.

9 The company is held by a trustee on behalf of UniCredit Bank GmbH.

10 UniCredit Bank GmbH holds the position of a limited partner under company law and participates in the profit of the company.

11 UniCredit Bank GmbH holds the position of a limited partner under company law but does not participate in the profit of the company.

98 Members of the Supervisory Board[1]

Andrea Orcel	**Chairman**
Florian Schwarz Dr Bernd Metzner Gianpaolo Alessandro until 31 August 2023	**Deputy Chairmen**
Dr Michael Diederich since 1 September 2023 Sabine Eckhardt Dr Claudia Mayfeld Fiona Melrose Claudia Richter Thomas Schöner Oliver Skrbot Christian Staack Gregor Völkl	**Members**

1 As at 31 December 2023.

Other Information (Continued)

99 Members of the Executive Board[1,2]

Dr Michael Diederich until 28 February 2023	**Spokesman of the Management Board (CEO)** **People & Culture (incl. Labour and Social Affairs pursuant to Section 27 (2) 2 MgVG)**
Marion Höllinger	**Spokeswoman of the Executive Board (CEO)** (since 1 March 2023) **People & Culture (incl. Labour and Social Affairs pursuant to Section 27 (2) 2 MgVG)** **Private Clients Bank** (until 28 February 2023)
Artur Gruca	**Chief Digital & Information Officer (CDOO)**
Dr Jürgen Kullnigg	**Chief Risk Officer (CRO)**
Jan Kupfer	**Head of Corporates Germany, Head of Client Solutions Germany** (ad interim)
Monika Rast since 1 March 2023	**Head of Private Clients Germany**
Christian Reusch until 15 December 2023	**Client Solutions**
Boris Scukanec Hopinski until 30 April 2023	**Operations Germany (COO)**
Ljubisa Tesić	**Chief Financial Officer (CFO)**

1 As at 31 December 2023.
2 Until the change of legal form became effective (15 December 2023) Management Board of UniCredit Bank AG, after the change of legal form became effective Executive Board of UniCredit Bank GmbH.

Munich, 28 February 2024

UniCredit Bank GmbH
The Executive Board

Artur Gruca

Marion Höllinger

Dr Jürgen Kullnigg

Jan Kupfer

Monika Rast

Ljubisa Tesić

Responsibility Statement by the Executive Board

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 Management's Discussion and Analysis 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.

Munich, 28 February 2024

UniCredit Bank GmbH
The Executive Board

Artur Gruca	Marion Höllinger	Dr Jürgen Kullnigg
Jan Kupfer	Monika Rast	Ljubisa Tesić

Note: This is a translation of the German original. Solely the original text in German language is authoritative.

Reproduction of the independent auditor's report

Based on the results of our audit, we have issued the following unqualified auditor’s report:

Independent Auditor's Report

To UniCredit Bank GmbH (until December 15, 2023: UniCredit Bank AG), Munich

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Opinions

We have audited the consolidated financial statements of UniCredit Bank GmbH (until December 15, 2023: UniCredit Bank AG), Munich, and its subsidiaries (the Group), which comprise the consolidated balance sheet as of December 31, 2023, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the financial year from January 1 to December 31, 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the management report of the Company and the Group (hereinafter: combined management report) of UniCredit Bank GmbH (until December 15, 2023: UniCredit Bank AG) for the financial year from January 1 to December 31, 2023.

In accordance with German legal requirements, we have not audited the content of those components of the combined management report specified in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the 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 of December 31, 2023, and of its financial performance for the financial year from January 1 to December 31, 2023, and

- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the content of those components of the combined management report specified in the "Other Information" section of the auditor's report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation No 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Determination of allowances for expected credit losses (Stages 1 and 2)

The significant accounting policies and significant accounting judgments are described in note 14 in the notes to the consolidated financial statements. For information on impairment under IFRS 9, please refer to notes 53, 54 and 73 in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

As of December 31, 2023, UniCredit Bank GmbH reported in its consolidated financial statements a loss allowance for financial assets in Stage 1 of EUR 207 million (PY: EUR 274 million) and Stage 2 of EUR 643 million (PY: EUR 694 million).

The determination of impairment is based on expected credit losses and therefore also includes expectations about the future. Expected credit losses are recognized pursuant to IFRS 9 using a three-stage process to calculate impairment.

The loss allowance in Stage 1 corresponds to the expected credit losses from default events in the next twelve months. The loss allowance in Stage 2 relates to financial instruments whose credit risk has risen considerably since initial recognition. Stage 2 loss allowances take into account all expected credit losses from default events for the entire remaining term.

Calculating the allowance for expected credit losses in Stages 1 and 2 requires the use of complex models.

This includes considering various value determinants, such as the determination of statistical default probabilities and loss rates, the possible amount due on default, the stage transfer criteria related to a significant change in borrowers' credit risk (significant increase in credit risk, SICR), as well as the calculation of future cash flows. Furthermore, macroeconomic scenarios are incorporated into the calculation.

Further current external information which cannot be reflected by the scenarios, is – where necessary – included in the measurement through subsequent post-model adjustments.

There is considerable judgment with regard to the models used to determine the aforementioned parameters, the internal ratings, the criteria for identifying a significant increase in credit risk, the selection of macroeconomic variables as well as the determination of the post-model adjustments.

There is the risk for the financial statements that due to inappropriate use of models or inappropriate parameters, the amount of the allowance for expected credit losses is inaccurately presented in Stages 1 and 2.

OUR AUDIT APPROACH

Based on our risk assessment and evaluation of the risks of material misstatement, we used both control-based and substantive audit procedures to support our audit opinion. We tested the design, setup and effectiveness of the relevant controls used to determine the loss allowance.

Among others, our audit included controls regarding the:

- Determination of parameter-based loss allowances
- Validation of the models used for this purpose and the application of parameters
- Rating determination and approvals
- Approval of the concept and the determination of post-model adjustments

With the involvement of our IT experts, we verified the effectiveness of the general IT controls and application controls for the IT systems and individual data processing systems deployed in this regard.

In addition, we conducted the following substantive audit procedures:

- Evaluation of methods for calculating the loss allowances and the accounting policies for the loss allowances
- Evaluation of significant model modifications
- Verification of the Bank's validations for selected, significant models and recalculation of validation tests
- Review of the ratings, collateral valuation and assessment of solvency for borrowers selected on a risk basis, and assessment of the criteria used to identify a significant increase in credit risk
- Evaluation of the stage methodology and allocation as well as its implementation
- Recalculation of the parameter-based loss allowance calculation
- Assessment of the appropriateness of the macroeconomic variables, scenarios and their weighting
- Assessment of the assumptions, determination and implementation of post-model adjustments

- Benchmarking of key elements of the methodology, assumptions and macroeconomic variables with institutions of similar size and complexity

OUR OBSERVATIONS

The models used to determine the allowance for expected credit losses of Stages 1 and 2 were applied appropriately in accordance with the applicable accounting policies. The parameters underlying the calculation are appropriate.

Determination of fair value of Level 2 and Level 3 financial instruments

The significant accounting policies are described in notes 9 to 12 as well as 22 to 23 in the notes to the consolidated financial statements. For information on the fair value categories with regard to Level 2 and Level 3 financial instruments, please refer to note 79 in the notes to consolidated financial statements.

THE FINANCIAL STATEMENT RISK

Financial instruments of fair value Levels 2 and 3 under IFRS 13 are largely securities and derivatives measured at fair value according to IFRS 9 for which there is no quoted price on an active market and for which valuation methods are used based on observable and unobservable market data.

As of the reporting date, the Group reported under assets Level 2 and Level 3 financial instruments of EUR 53.3 billion (PY: EUR 68.6 billion) which are measured at fair value. This corresponds to 65.4% (PY: 70.3%) of financial assets measured at fair value and 18.8% (PY: 21.6%) of total assets, representing a significant item within the Bank's assets.

Level 2 and Level 3 financial instruments of EUR 46.4 billion (PY: EUR 62.6 billion) measured at fair value are included under liabilities. This corresponds to 87.1% (PY: 90.3%) of financial liabilities measured at fair value and 16.4% (PY: 19.7%) of total equity and liabilities, representing a significant item within the Bank's liabilities.

The valuation methods used may be based on complex models and include assumptions subject to judgment, especially for unobservable parameters.

There is the risk for the financial statements that the Level 2 and Level 3 financial instruments are measured using inappropriate valuation models as well as inappropriate inputs and that these financial instruments are thus reported in an inaccurate amount.

OUR AUDIT APPROACH

Based on our risk assessment and evaluation of the risks of material misstatement, we developed an audit approach which encompasses both control testing as well as substantive audit procedures. We tested the design, setup and effectiveness of the relevant controls used to determine the fair values for Level 2 and Level 3 financial instruments.

Among others, our audit included controls regarding the:

- Validation or independent verification of observable and unobservable market data/prices
- Validation of the measurement methods and models
- Recording of trading transactions as well as the measurement of relevant trade data in the IT systems

In addition, we audited the effectiveness of the general IT controls in the IT systems deployed.

As of December 31, 2023, we carried out (among other things) the following substantive audit procedures for Level 2 and Level 3 financial instruments selected based on risk:

- Remeasurement of fair values using independent valuation methods, inputs and models with the involvement of KPMG's internal valuation experts
- Inspection of the functional design and documentation as well as remeasurement of adjustments – which were selected based on risk – for determining fair value
- Assessment of appropriateness of the own credit spread and funding spread curve used to measure financial liabilities

OUR OBSERVATIONS

The valuation models and inputs used to determine the fair value of Level 2 and Level 3 financial instruments are appropriate.

Measurement of land and buildings held as property, plant and equipment or as investment property

The significant accounting policies and significant accounting judgments are described in notes 16 and 18 in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

As of December 31, 2023, UniCredit Bank GmbH reported an amount of land and buildings of EUR 1,791 million (PY: EUR 2,076 million) in property, plant and equipment and an amount of EUR 254 million (PY: EUR 351 million) as investment property in its consolidated financial statements.

The reporting date measurement of buildings and land for property, plant and equipment pursuant to IAS 16.31 uses the revaluation method and measurement for investment property pursuant to IAS 40.33 is at fair value.

The measurement of land and buildings held as property, plant and equipment and as investment property is complex and is based on a series of assumptions requiring judgment. These especially include future expected market rents, interest rates used for capitalization, property costs and standard land values.

Owing to the downward changes in value and uncertainties in the property market, there is the risk that the assumptions are not determined appropriately and the fair value as of December 31, 2023, is overstated.

OUR AUDIT APPROACH

Based on our risk assessment and evaluation of the risks of material misstatement, we used both control-based and substantive audit procedures to support our audit opinion. We tested the design, setup and effectiveness of the relevant controls used to determine the fair value.

With the involvement of our IT experts, we verified the effectiveness of the general IT controls and application controls for the IT systems and individual data processing systems deployed in this regard.

Among other controls, our audit included controls regarding:

- Master data recording in lease management

- Review of external valuation reports and validation of the underlying assumptions relevant for valuation
- Checking correctness of changes in value

In addition, we conducted the following substantive audit procedures in particular:

- Review of the provided external valuation reports and the methods, assumptions and property data included for the valuation for selected land and properties with the deployment of KPMG's own valuation experts. Verification of the assumptions including by comparing the assumptions for measurement and market data. Further, the evaluation of appropriate methods used, in particular by type of property and location.
- Sample-based evaluation of the property data and estimated market rents in the external valuation reports of the remaining population. In addition, other material assumptions were examined taking into account risk and materiality matters.
- Recalculation of the changes in carrying amount by comparing the fair value with the carrying amounts before remeasurement

OUR OBSERVATIONS

The assumptions applied for the fair value measurement were determined appropriately.

Other Information

Management and/or the Supervisory Board are/is responsible for the other information. The other information comprises the following components of the combined management report, whose content was not audited:

- the corporate governance statement pursuant to Section 289f (4) HGB (disclosures on the quota for women on executive boards), included in the section "Corporate governance statement pursuant to Section 289f (4) HGB" of the combined management report.

The other information also includes the remaining parts of the annual report. The other information does not include the consolidated financial statements, the combined management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

Management is responsible for the preparation of 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, management 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, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are 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, management is responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined 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 combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted 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 combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures 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 combined 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 management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management'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 combined 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 combined 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 combined management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management 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 also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Combined 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 "GB_HVB Group_DE_V52_Aufstellung_28.02.2024.zip" (SHA256 hash value: 92c0b732b4eba5415a28130bc08e34a5b1b094fd805b25100d1b 942e4e7d730c) 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 combined 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 combined 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 combined management report for the financial year from January 1 to December 31, 2023, contained in the "Report on the Audit of the Consolidated Financial Statements and the Combined 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 combined 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)). 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 QMS 1) (09.2022).

The Company’s management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the combined 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 Company's management 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 judgment and maintain professional skepticism 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 Commission Delegated Regulation (EU) 2019/815, as amended as of 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 combined management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Commission Delegated Regulation (EU) 2019/815, as amended as of the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Legal uncertainty concerning the conformity of the interpretation of the applicable European requirements

Owing to the conversion process selected by the Company concerning the information in the notes in iXBRL format (block tagging), the consolidated financial statements converted into the ESEF format are not machine-readable in a fully meaningful respect. There is significant legal uncertainty regarding the legal conformity of management's interpretation that meaningful machine-readability of the structured information in the notes is not explicitly required by Commission Delegated Regulation (EU) 2019/815 for the block tagging of notes, which thus also constitutes an inherent uncertainty of our audit.

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor at the Annual General Meeting on March 27, 2023. We were engaged by the Supervisory Board on June 28, 2023. We have been the group auditor of UniCredit Bank GmbH (until December 15, 2023: UniCredit Bank AG) without interruption since financial year 2022.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other Matter – Use of the Auditor's Report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited combined management report as well as the examined ESEF documents. The consolidated financial statements and combined management report converted to the ESEF format – including the versions to be entered in the German Company Register [Unternehmensregister] – are merely electronic renderings of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the ESEF report and our 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 Klaus-Ulrich Pfeiffer.

Munich, March 1, 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft

[*signature*] Pfeiffer Wirtschaftsprüfer [German Public Auditor]	[*signature*] Bormann Wirtschaftsprüfer [German Public Auditor]

List of Executives and Outside Directorships

Supervisory Board[1]

Name, occupation, place of residence	Positions on other statutory supervisory boards of German companies	Position on comparable boards of German and foreign companies
Andrea Orcel Group Chief Executive Officer und Head of Italy der UniCredit S.p.A., Milan Chairman		EIS Group Inc., San Francisco (USA)
Florian Schwarz Member of UniCredit Bank GmbH, Munich Deputy Chairman		
Dr Bernd Metzner[2] Member of the Management Board (Chief Financial Officer) of Gerresheimer AG, Düsseldorf Deputy Chairman	Gerresheimer Bünde GmbH, Bünde (Deputy Chairman) Gerresheimer Regensburg GmbH, Regensburg (Deputy Chairman) Gerresheimer Tettau GmbH, Tettau (Deputy Chairman)	Gerresheimer Glass Inc., Vineland (USA) Centor US Holding Inc., Perrysburg (USA) Centor Inc., Perrysburg (USA) Centor Pharma Inc., Perrysburg (USA) Corning Pharmaceutical Packaging LLC, New York (USA) Senile Medical AG, Olten (Switzerland)
Gianpaolo Alessandro until 31 August 2023 Group Legal Officer and Secretary of the Board of Directors der UniCredit S.p.A., Milan Deputy Chairman		Compagnia Aerea Italiana S.p.A., Rome MidCo S.p.A., Rome
Dr Michael Diederich since 1 September 2023 Member of the Management Board (Chief Financial Officer) and Deputy Chairman of the Management Board of FC Bayern Munich AG, Riemerling	Ehrmann SE, Oberschönegg (since 1 June 2023)	
Sabine Eckhardt[2] Member of the Supervisory Board and Advisor, Munich	CECONOMY AG, Düsseldorf (1 January 2023 until 31 January 2023 dormant directorship pursuant to Section 105 (2) German Stock Corporation Act[2]) Edel SE & Co. KGaA, Hamburg (since 30 March 2023), Chairwoman (since 31 March 2023)	
Dr Claudia Mayfeld Member of the Management Board of Knorr-Bremse Aktiengesellschaft, Dortmund	Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Munich Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, Munich	
Fiona Melrose Head of Group Strategy und ESG der UniCredit S.p.A., Milan		
Claudia Richter Employee of UniCredit Bank GmbH, Fürth		
Thomas Schöner Employee of Structured Invest S.A., Saarwellingen		

Name, occupation, place of residence	**Positions on other statutory supervisory boards of German companies**	**Position on comparable boards of German and foreign companies**
Oliver Skrbot Employee of UniCredit Bank GmbH, Buttenwiesen		
Christian Staack Employee of UniCredit Bank GmbH, Hamburg		
Gregor Völkl Unit Manager of Vereinte Dienstleistungsgewerkschaft ver.di Unit 1 – Financial Services Munich district, Munich	Generali Deutschland AG, Munich (since 14 February 2023)	

1 As at 31 December 2023.
2 Other directorships (compare Article 435 (2a) CRR):
- Dr Bernd Metzner holds four other directorships within the Gerresheimer Group.
- Ms Eckhardt held a directorship until 31 January 2023.

List of Executives and Outside Directorships (Continued)

Supervisory Board committees[1,2]

Audit Committee
Dr Bernd Metzner, Chairman
Sabine Eckhardt
Fiona Melrose
Oliver Skrbot

Nomination Committee
Dr Michael Diederich, Chairman (since 1 September 2023)
Gianpaolo Alessandro, Chairman (until 31 August 2023)
Sabine Eckhardt
Fiona Melrose
Florian Schwarz

Remuneration Control Committee
Fiona Melrose, Chairwoman (since 1 September 2023)
Gianpaolo Alessandro, Chairman (until 31 August 2023)
Sabine Eckhardt
Dr Claudia Mayfeld
Florian Schwarz

Risk Committee
Dr Claudia Mayfeld, Chairwoman
Dr Michael Diederich, (since 1 September 2023)
Gianpaolo Alessandro (until 31 August 2023)
Fiona Melrose
Christian Staack

1 As of 31 December 2023.
2 See also the Report of the Supervisory Board.

1 As of 31 December 2023.

List of Executives and Outside Directorships (Continued)

Executive Board[1,2]

Name	Positions on statutory supervisory boards of other German companies	Positions on comparable boards of other German and foreign companies
Dr Michael Diederich born 1965 until 28 February 2023 Board Spokesman (CEO) People & Culture (incl. Human Capital/Labour & Social Affairs pursuant to Section 27 (2) s. 2 MgVG)	FC Bayern Munich AG, Munich	ESMT European School of Management and Technology GmbH, Berlin (until 28 February 2023)
Marion Höllinger born 1972 Spokeswoman of the Executive Board (CEO)[1] People & Culture (incl. Human Capital/Labour & Social Affairs pursuant to section 27 (2) s. 2 MgVG)	WealthCap Kapitalverwaltungsgesellschaft mbH, Grünwald[3], (Deputy Chairman) (until 30 April 2023)	Wealth Management Capital Holding GmbH, Munich[3], (Deputy Chairman) (until 30 April 2023) ESMT European School of Management and Technology GmbH, Berlin (since 1 March 2023)
Artur Gruca born 1979 Chief Digital & Operating Officer (CDOO)		
Dr Jürgen Kullnigg born 1961 Chief Risk Officer (CRO)	HVB Immobilien AG, Munich[3] (Deputy Chairman since 1 May 2023) WealthCap Kapitalverwaltungsgesellschaft mbH, Grünwald (since 1 May 2023)[3] (Deputy Chairman since 22 June 2023)	Wealth Management Capital Holding GmbH, Munich (since 1 May 2023)[3] (Deputy Chairman since 22 June 2023)
Jan Kupfer born 1964 Head of Corporates Germany, Head of Client Solutions Germany (acting)	Bayerische Börse Aktiengesellschaft, Munich (Deputy Chairman)	
Monika Rast born 1972 since 1 March 2023 Head of Private Clients Germany		UniCredit Bulbank AD, Sofia (Bulgaria)
Christian Reusch born 1973 until 15 December 2023 Client Solutions		
Boris Scukanec Hopinski born 1981 until 30 April 2023 Operations Germany (COO)	HVB Immobilien AG, Munich (Chairman)[3] (until 30 April 2023) WealthCap Kapitalverwaltungsgesellschaft mbH, Grünwald (Chairman)[3] (until 30 April 2023)	Wealth Management Capital Holding GmbH, Munich (Chairman)[3] (until 30 April 2023)
Ljubisa Tesić born 1976 Chief Financial Officer (CFO)		UniCredit Bank Serbia JSC, Belgrade (until 23 April 2023)

1 Until the change of legal form became effective (15 December 2023), Chairman of the Management Board of UniCredit Bank AG; when the change of legal form became effective, Chairman of the Executive Board of UniCredit Bank GmbH.
2 As at 31 December 2023.
3 Group directorship.

List of employees and outside directorships

Name	Positions[1] on statutory supervisory boards of other companies
Dr Auerbach, Christoph	HVB Trust Pensionsfonds AG, München, WealthCap Kapitalverwaltungsgesellschaft mbH[2]
Aurich, Peter	CAM AG, Munich
Dr Fischer, Jochen	HVB Trust Pensionsfonds AG, Munich
Glückert, Matthias	OECHSLER AG, Ansbach
Dr Jungemann, Lars	HVB Trust Pensionsfonds AG, Munich
Stipkovic, Sven	WealthCap Kapitalverwaltungsgesellschaft mbH[2]
Weidenhöfer, Peter	WealthCap Kapitalverwaltungsgesellschaft mbH[2]
Woisetschläger, Herbert	WealthCap Kapitalverwaltungsgesellschaft mbH[2]

1 As at 31 December 2023.
2 Group directorship.

Report of the Supervisory Board

With effect as from 15 December 2023, UniCredit Bank AG was transformed into UniCredit Bank GmbH (hereinafter: “HVB” or “Bank”) by way of a change of legal form pursuant to Section 190 ff of the German Transformation Act (Umwandlungsgesetz – UmwG). In the reporting year, the Supervisory Board of UniCredit Bank GmbH discharged the responsibilities incumbent on it by law, the Articles of Association and its By-laws. Within that framework it advised the Management Board and, from the time the change in legal form became effective, the Executive Board (hereinafter both also referred to as the “Executive Board”) on the conduct of the Bank’s affairs, continuously monitored its management activities and thus satisfied itself that these were lawful and proper. This year, the Supervisory Board focused on various projects in the course of implementing the “UniCredit Unlocked” strategic plan and on the impact of the Russia-Ukraine conflict. The Supervisory Board solicited extensive reports on these topics from the Executive Board. In addition, the Executive Board informed the Supervisory Board regularly, promptly and comprehensively of business policies and the business strategy along with fundamental issues concerning corporate management and planning as well as the economic position of the individual business units. The Supervisory Board examined the financial development of the Bank and HVB Group, their profitability and earnings situation, liquidity and capital management and the risk situation. The Executive Board also submitted a full report on significant transactions, legal risks and compliance topics that were discussed at length by the Supervisory Board. These reports were provided primarily at the meetings of the Supervisory Board and its committees, but also outside meetings in written form. Furthermore, important topics and pending decisions were addressed at regular meetings between the Spokesman and Spokeswoman of the Executive Board and the Chairman of the Supervisory Board. The Supervisory Board was directly consulted at an early stage on decisions of fundamental importance for the Bank, engaged in comprehensive consultations on the matters at hand and, insofar as this was indicated, voted on the same after conducting an appropriate review. Resolutions of the Supervisory Board were also passed outside meetings, as required. Where necessary, meetings were held or individual items on the agenda were discussed even without the participation of the Executive Board. Potential conflicts of interest of individual Supervisory Board members were disclosed and taken into account where these existed.

Meetings and other resolutions of the full Supervisory Board

The Supervisory Board held five regular meetings and three extraordinary meetings in the 2023 financial year.

The Supervisory Board addressed the following subjects in particular:

At the first meeting of the year on **23 February 2023**, the Supervisory Board was briefed on personnel management in 2022 in HVB Group. In addition, the Supervisory Board considered succession planning for the Management Board including the diversity strategy and – taking account of the recommendations made by the Nomination Committee – confirmed the requirements profile and the questionnaire on conflicts of interest for the Management Board. Taking account of the recommendations made by the Nomination Committee and the Remuneration Control Committee, the Supervisory Board, among other things, resolved the regular reappointment of Dr Jürgen Kullnigg as a member of the Management Board. The Supervisory Board also confirmed that the total amount proposed as variable remuneration in 2022 for Management Board members and HVB Group employees was appropriate and resolved the variable remuneration for Management Board members for the 2022 financial year.

At the strategy and accounts meeting on **10 March 2023,** the Supervisory Board discussed the 2022 annual and consolidated financial statements including the combined management report for UniCredit Bank AG and HVB Group with the independent auditor, KPMG AG Wirtschaftsprüfungsgesellschaft (hereinafter “KPMG”) and approved them at the recommendation of the Audit Committee following its own in-depth review. The Supervisory Board also dealt with the report on relations with affiliated companies (dependent company report) and approved the report of the Supervisory Board for the 2022 financial year. As part of the report from the Audit Committee, the Supervisory Board was then briefed on compliance with banking supervisory regulations and discussed the implementation of the audit plan of the Internal Audit in 2022. Otherwise the key topic of the meeting was the “Business and Risk Strategies 2023” of HVB Group, taking climate and environmental risks and goals into account. In this context, the business strategy of the Retail, Corporates, Client Solutions, COO and CDIO business areas were discussed individually and in depth with the Management Board. The Supervisory Board also considered the implementation of the "UniCredit Unlocked" strategic plan (Multi-Year Plan 2023-2025), the results of the Supervisory Review and Evaluation Process (SREP), the 2023 budgets and the multi-year projection 2024-2025 of HVB Group. In addition, the Supervisory Board discussed the risk strategies of HVB Group and the implementation of the overall risk appetite and risk strategy with the Management Board.

The resolutions proposed for the agenda of the 2023 Annual General Meeting were adopted outside a meeting by written procedure on **23 March 2023.**

At the meeting on **20 April 2023,** the Supervisory Board was informed, among other things, of the current situation in the macroeconomic and banking environment, the SREP process and ESG governance. The Supervisory Board then discussed the quarterly figures as at 31 March 2023 and the launch of the new Target2 payments system with the Management Board. The Supervisory Board was also informed in detail about a transaction serving to optimise the Bank's investment portfolio, on which it had to pass a resolution at a later stage and approved the audit assignment for KPMG for 2023. The Supervisory Board then reviewed the structure of the 2023 Group Incentive System for the Bank that contains rules on determining the variable remuneration for risk takers as defined by the German Ordinance on the Supervisory Requirements for Institutions' Remuneration Systems (Institutsvergütungsverordnung – InstitutsVergV) and adopted this for Management Board members taking account of the recommendations of the Remuneration Control Committee. In addition, the Supervisory Board discussed and passed a resolution on the appropriateness and (partial) adjustment of the remuneration packages for Management Board members and the targets set for 2023 for Management Board members. Furthermore, the Supervisory Board approved the termination of the Management Board appointment of Mr Boris Scukanec Hopinski with effect from 30 April 2023 by mutual consent and the members already appointed such as Mr Artur Gruca among others taking over the area for which Mr Boris Scukanec Hopinski had previously been responsible. Prior to this, the Supervisory Board, taking account of the recommendations made by the Nomination Committee, had established among others Mr Artur Gruca's individual suitability for taking over the COO area as well as the collective suitability of the Management Board in its future composition.

Outside meetings on **31 May 2023**, the resolutions proposed for the agenda of the Extraordinary Shareholders' Meeting on 21 June 2023 were adopted by written procedure. On **4 July 2023**, approval was given for the chain merger in the CASiRE project and the resolutions proposed for the agenda of the Extraordinary Shareholders' Meeting on 7 July 2023 by written procedure.

At the meeting on **20 July 2023**, the Supervisory Board was again briefed on the implementation of the business strategy and significant initiatives, especially on various projects in the course of implementing the "UniCredit Unlocked" strategic plan. The Supervisory Board discussed the figures published in the Half-Yearly Financial Report of HVB Group as at 30 June 2023 with the Management Board. Furthermore, the Supervisory Board considered monitoring the appropriateness of the remuneration in 2022 for the heads of control functions and risk takers, the appropriateness of the structure of the 2023 Group Remuneration Policy for HVB Group employees and its implementation for HVB's Management Board as well as the appropriateness of the structure of the 2023 remuneration systems of HVB Group. Another topic was considering the procedure for identifying risk takers in HVB Group.

Report of the Supervisory Board (Continued)

At the extraordinary meeting on **28 September 2023**, the Supervisory Board approved the termination of the appointment of Mr Christian Reusch as a Management Board member by mutual consent and – after establishing his individual suitability – the appointment of Mr Marco Iannaccone as a member of the Management Board with effect from 1 April 2024 and approved his Management Board employment contract together with his remuneration package. Moreover, the Supervisory Board established the collective suitability of the Management Board in its future composition among other things.

At the meeting on **20 October 2023**, the Management Board provided an update on HVB Group's business performance. The Supervisory Board was briefed on FTE development and on ongoing, important FTE efficiency measures in 2023. A topic of discussion between the Supervisory Board and the Management Board was also HVB Group's figures as at 30 September 2023. The Supervisory Board also debated on reviewing the Executive Board's principles for selecting and appointing individuals to senior management level and monitoring potential conflicts of interest of the Management Board and the Supervisory Board. In addition, the Supervisory Board discussed the results of the annual evaluation and addressed the issue of setting a target for the proportion of women on the Management Board and succession planning for the Supervisory Board and then adopted corresponding resolutions.

At the extraordinary meeting on **5 December 2023**, the Supervisory Board and the Management Board considered key aspects of HVB Group's new business strategy, including information on the 2024 budget, 2025-2026 projections and the risk appetite framework (RAF) for 2024. Another topic dealt with by the Supervisory Board was the draft SREP letter for 2023. Moreover, the Supervisory Board addressed various governance issues and adopted corresponding resolutions.

At the extraordinary meeting on **13 December 2023**, the Supervisory Board passed resolutions on the adoption of By-laws for the Supervisory Board and new requirements profiles for the Executive Board due to the change in legal form to that of a limited liability company, i.e. a "GmbH" (Gesellschaft mit beschraenkter Haftung). In addition, the Supervisory Board was informed that the appointment of Mr Christian Reusch as a Management Board member will end with effect from the time UniCredit Bank GmbH is entered in the Commercial Register. The Supervisory Board adopted a resolution on the conclusion of an additional agreement to the termination agreement with Mr Reusch. Besides Mr Reusch, the Supervisory Board appointed the members previously holding office on the Management Board of UniCredit Bank AG as managing directors of UniCredit Bank GmbH and adopted a resolution on matters relating to their employment contracts. After establishing individual and collective suitability, the Supervisory Board then appointed Mr Pierpaolo Montana with effect from 1 April 2024 as a managing director and approved his employment contract as a managing director as well as his remuneration package.

Supervisory Board committees

To efficiently perform its tasks, the Supervisory Board set up a Nomination Committee, a Remuneration Control Committee, a Risk Committee and an Audit Committee from among its members. Each committee elected a chairman or chairwoman. The composition of the committees is shown in the "Supervisory Board" list in this Annual Report. The responsibilities of each of the committees are defined in the By-laws of the Supervisory Board.

The cooperation and sharing of content among the individual committees is ensured by at least one member of each committee sitting on another committee. Furthermore, the chairs of the committees coordinated inter-committee topics with the member of the Executive Board responsible in each case and among one another. They also exercised their rights to information. As far as necessary, the committees adopted resolutions or gave recommendations to the Supervisory Board for adopting resolutions, also outside of meetings. The chairs of all the committees reported in detail at the next respective plenary session of the Supervisory Board on the topics of the committees' discussions, the outcome of these and resolutions passed by the committees.

Nomination Committee
The Nomination Committee met five times in the past year and in particular performed its duties as defined in Section 25d (11) of the German Banking Act (Kreditwesengesetz – KWG). This consisted above all in assisting the Supervisory Board in succession planning for the Executive Board and the Supervisory Board. In particular, it prepared the appointment of two new managing directors (including fit and proper assessments), the reappointment of one managing director and the appointment of previous Management Board members as managing directors which was required due to the change in legal form. It also carried out fit and proper assessments for four managing directors who were to assume new responsibilities (in some cases as an interim measure) as part of their continuing appointments. In addition, the Nomination Committee reviewed the Executive Board's principles for selecting and appointing individuals to senior management level including key function holders and supported the Supervisory Board in making corresponding recommendations to the Executive Board. Furthermore, the Nomination Committee prepared succession planning for the Executive Board and the Supervisory Board (which included job descriptions with applicant profiles) as well as resolutions on monitoring and managing potential conflicts of interest of the Executive Board and the Supervisory Board. With the support of an external, independent consultant (auditing company), the Nomination Committee also prepared the annual evaluation of the Executive Board and the Supervisory Board pursuant to Section 25d (11) KWG.

Remuneration Control Committee
In the past year, the Remuneration Control Committee met five times and also met once in a joint meeting with the Risk Committee. In particular, this committee performed the tasks defined in Section 25d (12) KWG and in the InstitutsVergV. It discussed the Remuneration Control Report 2022 of the Remuneration Officer and on the basis of this report in a joint meeting with the Risk Committee, it reviewed relevant interfaces between the remuneration system and the risk management system in order to analyse the effects of the remuneration systems on the risk, capital and liquidity situation of the Bank and HVB Group. It also focused on ensuring that the remuneration systems comply with requirements, in particular those set out in Section 4 InstitutsVergV. In addition, the Remuneration Officer presented her 2023 annual plan to the Remuneration Control Committee and advised it on all monitoring and structuring tasks relating to employee remuneration systems. The committee discussed the appropriateness of the total amount proposed as variable remuneration in 2022 for Management Board members and HVB Group employees. It analysed the performance of Management Board members, the determination of the variable remuneration for the 2022 financial year respectively and the targets set for the individual members of the Executive Board in the 2023 financial year. It then gave corresponding recommendations to the Supervisory Board. The committee prepared the draft resolution of the Supervisory Board on the appropriateness of the remuneration in 2022 for the heads of the Risk Controlling function, the Compliance function and risk takers including the process for identifying risk takers. It also discussed the appropriateness of the structure of the 2023 Group Remuneration Policy for employees and the 2023 Group Incentive System and recommended to the Supervisory Board that this system also be implemented for members of the Executive Board. The committee prepared the draft resolution of the Supervisory Board on the appropriateness of the 2023 remuneration systems of HVB Group and on the structure of the 2023 remuneration packages of members of the Executive Board and, after in-depth discussion, made corresponding recommendations to the Supervisory Board. Furthermore, the committee discussed employment contracts in connection with appointments, considered the contractual arrangements along with the remuneration of the managing directors in detail and provided corresponding recommendations to the Supervisory Board. Independent external legal advisers were consulted in individual cases.

Report of the Supervisory Board (Continued)

Risk Committee

The Risk Committee met five times in the past year, held one joint meeting with the Remuneration Control Committee and two joint meetings with the Audit Committee. The independent auditor and the head of the Internal Audit attended all the committee meetings to provide information. In particular, the Risk Committee dealt with the current and future overall risk appetite and risk strategy of HVB Group on a regular basis. In compliance with the Minimum Requirements for Risk Management (Mindestanforderungen an das Risikomanagement - MaRisk) for banks, the Risk Committee received monthly risk reports. The Chief Risk Officer used the integrated risk reports in the meetings to explain the development of the ICAAP for HVB Group, credit risk, financial and non-financial risk and strategic risk as well as the integration of ESG factors. The Risk Committee also addressed macroeconomic and geopolitical developments and their impact on the Bank at regular intervals at its meetings. Other focal points of discussion were stress test scenarios and the results of HVB Group’s stress tests. A subject of intensive deliberation was the review of the efficiency of the risk management system and the quarterly reports of the Internal Audit and the Compliance function. The committee monitored the compliance of financial products and services with the Bank’s business model and risk structure. It received regular reports on the credit organisation and development of resources in risk management. At a joint meeting with the Remuneration Control Committee, the Risk Committee used the 2022 Remuneration Control Report of the Remuneration Officer to analyse whether the incentives set by the remuneration system take the Bank’s risk, capital and liquidity structure as well as the probability and due dates of revenues into account. Furthermore, the Risk Committee was briefed at joint meetings with the Audit Committee on IT security management and IT organisation as well as on the latest respective quarterly reports of the Internal Audit and the Compliance function.

Audit Committee

The Audit Committee convened for four meetings in the reporting year and twice at a joint meeting with the Risk Committee. Representatives of the independent auditor and particularly also persons from whom the Audit Committee has a right to obtain information directly (such as the head of the Internal Audit and the Chief Compliance Officer, among others) attended all of the committee meetings to advise and to provide information. The key responsibilities of the Audit Committee are to monitor the financial reporting process, the effectiveness of the risk management system (RMS), particularly the internal control system (ICS) including the Compliance function and the internal audit system, and the audit of the financial statements. In the reporting year, the meetings thus looked at the preliminary audit of the 2022 annual and consolidated financial statements and the report on relations with affiliated companies, prepared draft resolutions for the Supervisory Board and discussed the 2023 Half-yearly Financial Report and the figures as at 31 March and 30 September 2023. The Audit Committee was informed by the independent auditor of the main outcome of the reviews. Moreover, the Audit Committee gave in-depth and extensive consideration to the efficiency of the risk management system, particularly the internal control system, the compliance management system and the internal audit system. The efficiency of each system was discussed in depth with the Executive Board, the Internal Audit, the Compliance function and the independent auditor. In this context the Chairwoman of the Risk Committee also reported to the Audit Committee on the Risk Committee’s assessment of the audit of risk management efficiency. The Audit Committee discussed the quarterly reports of the Internal Audit and the Compliance function on a regular basis at its meetings. The committee was provided with the annual plan of the Internal Audit and the Compliance function. It solicited regular reports on the status and the progress made in the remediation of the relevant internal and external findings of the Internal Audit, the Compliance function, the independent auditor and the supervisory authorities along with key results of audits by the supervisory authorities. It also considered the independent auditor’s report on the annual audit of the securities account business according to Section 89 of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG), the Bank’s outsourcing arrangements, the report of the Data Protection Officer and the annual report of the Legal department on the Bank’s legal risks (including status updates on selected legal risks) as well as sustainability reporting requirements in connection with the introduction of Directive (EU) 2022/2464 (CSRD). It requested reports on the liquidity situation each quarter.

In addition, the committee prepared the appointment of the independent auditor in 2023 by the Annual General Meeting and the award of the audit engagement by the Supervisory Board. It also monitored audit-related non-audit services according to the service catalogue.

At joint meetings with the Risk Committee, the two committees solicited reports in particular on IT security management (cyber risk), the respective current quarterly reports of the Internal Audit and the Compliance function as well as an analysis of the Bank's legal risks.

Training and education
The members of the Supervisory Board took part in the training and educational programmes required for their tasks on their own initiative. In the process, they were appropriately supported by HVB. In particular, training events were held on the topics of ESG aspects and the resulting risks as well as cyber security.

Annual financial statements for 2023
KPMG audited the annual financial statements prepared in accordance with the German Commercial Code (Handelsgesetzbuch – HGB), the consolidated financial statements prepared in accordance with International Financial Reporting Standards (IFRS) and the combined management report für UniCredit Bank GmbH and HVB Group for the 2023 financial year. The independent auditor issued an unqualified opinion in each case.

The financial statements listed above were provided to the Supervisory Board along with the proposal of the Executive Board for the appropriation of the distributable profit and the independent auditor's audit reports. The Audit Committee examined these documents in great detail during the preliminary audit. The lead auditor of the independent auditor reported on the key findings of the audit at the preparatory meeting of the Audit Committee and at the subsequent meeting of the Supervisory Board devoted to the annual financial statements. The topics addressed were particularly the internal control system and the risk management system relating to the financial reporting process (ICS) compliant with Section 171 (1) German Stock Corporation Act (Aktiengesetz – AktG). Questions of members of the Supervisory Board were answered in detail and in full. During the meeting of the Audit Committee, the independent auditor also reported on the work performed by the independent auditor in addition to the audit of the financial statements and stated that there were no circumstances speaking against their independence. The Chairman of the Audit Committee reported to the full Supervisory Board on the results of the audit. Upon recommendation by the Audit Committee, the Supervisory Board approved the results of the audit by the independent auditor after checking and discussing in depth all the documents submitted and finding them to be orderly, validated and complete. On the basis of its own examination of the annual financial statements and the consolidated financial statements including the combined management report for UniCredit Bank GmbH and HVB Group as well as the proposal for the appropriation of the distributable profit, the Supervisory Board determined that no objections were to be raised. The Supervisory Board has therefore approved the annual financial statements and the consolidated financial statements prepared by the Executive Board. Consequently, the annual financial statements were adopted. The Supervisory Board also concurred with the proposal of the Executive Board for the appropriation of the distributable profit.

UniCredit S.p.A. held a majority interest in HVB after 17 November 2005 and has held a 100% interest in HVB since 15 September 2008. As HVB was a stock corporation (Aktiengesellschaft – AG) until the change in legal form became effective on 15 December 2023 and Section 312 AktG therefore applied, the Executive Board has also prepared a report on relations of HVB with affiliated companies for the 2023 financial year in accordance with Section 312 AktG.

Report of the Supervisory Board (Continued)

KPMG audited this report and issued the following opinion:

"On the basis of our statutory audit and assessment, we confirm that
1. the actual information contained in the report is correct,
2. the company's performance was not unreasonably high or disadvantages were compensated for the legal transactions mentioned in the report,
3. no circumstances speak in favour of a significantly different assessment to the one given by the Executive Board (until 15 December 2023: Management Board) concerning the measures mentioned in the report."

The report of the Executive Board on relations with affiliated companies and the related audit report by KPMG were also forwarded to the Supervisory Board. In the course of the preliminary audit, the Audit Committee and then the full Supervisory Board considered these documents in depth. The plausibility and consistency, and individual legal transactions between HVB and UniCredit S.p.A. and its affiliated companies were carefully examined together with other cost-generating measures initiated by UniCredit S.p.A. The independent auditor took part in the respective discussion of the Supervisory Board and the preparatory meeting of the Audit Committee, and gave a report on the key findings of their audit. The Chairman of the Audit Committee also reported to the full Supervisory Board on the results of the review by the committee. Following the examination of the report on relations of HVB with affiliated companies in the 2023 financial year prepared by the Executive Board, which did not identify any deficiencies, the Supervisory Board is of the opinion that no objections are to be raised about the concluding statement of the Executive Board in this report.

Personnel
Ms Monika Rast took over the Private Clients Bank area as a member of the Management Board with effect from 1 March 2023. Ms Marion Höllinger was elected Spokeswoman of the Management Board from 1 March 2023 by the Management Board in agreement with the Supervisory Board and thus took over as CEO with effect from 1 March 2023. Mr Boris Scukanec Hopinski resigned from the Management Board with effect from the end of 30 April 2023 and Mr Christian Reusch with effect from 15 December 2023. The area previously managed by Mr Boris Scukanec Hopinski was taken over by Mr Artur Gruca on 1 May 2023. Due to the expiry of their appointments, Ms Monika Rast is leaving the Bank with effect from the end of 29 February 2024 and Dr Jürgen Kullnigg with effect from the end of 31 March 2024. Mr Marco Iannaccone and Mr Pierpaolo Montana were appointed to the Bank's Executive Board with effect from 1 April 2024.

Mr Gianpaolo Alessandro resigned from the Supervisory Board as shareholder representative with effect from the end of 31 August 2023. Dr Michael Diederich was elected to the Supervisory Board in his place in 2022 with effect from 1 September 2023.

The Supervisory Board thanks Mr Alessandro for his long-term, dedicated and valuable service and also for his commitment and his constructive support for the Bank.

The Supervisory Board would like to thank the Executive Board as well as the employees for all their hard work and their services in the 2023 financial year.

Munich, 8 March 2024

The Supervisory Board

Andrea Orcel
Chairman

Summary of Annual Financial Data

OPERATING PERFORMANCE (€ millions)	2023	2022	2021	2020	2019
Net interest	2,739	2,626	2,516	2,413	2,388
Dividends and other income from equity investments	30	31	28	37	24
Net fees and commissions	1,165	1,120	1,115	1,007	973
Net trading income	1,564	932	655	662	579
Net gains/(losses) on financial assets and liabilities at fair value	(117)	149	85	(78)	108
Net gains/(losses) on derecognition of financial instruments measured at amortised cost	(17)	29	(9)	(3)	13
Net other expenses/income	(255)	(138)	(61)	603	742
OPERATING INCOME	**5,109**	**4,749**	**4,329**	**4,641**	**4,827**
Payroll costs	(1,334)	(1,415)	(1,485)	(1,451)	(1,453)
Other administrative expenses	(1,045)	(1,087)	(1,202)	(1,231)	(1,220)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(150)	(109)	(119)	(126)	(483)
Operating costs	**(2,529)**	**(2,611)**	**(2,806)**	**(2,808)**	**(3,156)**
OPERATING PROFIT/(LOSS)	**2,580**	**2,138**	**1,523**	**1,833**	**1,671**
Net write-downs of loans and provisions for guarantees and commitments	(167)	(299)	(114)	(733)	(115)
NET OPERATING PROFIT/(LOSS)	**2,413**	**1,839**	**1,409**	**1,100**	**1,556**
Provisions for risks and charges	32	11	(153)	11	313
Restructuring costs	(309)	(80)	(617)	(35)	(363)
Net gains/(losses) on remeasurement of consolidated companies	3	(2)	(13)	(4)	(15)
PROFIT/(LOSS) BEFORE TAX AND IMPAIRMENT ON GOODWILL	**2,139**	**1,768**	**626**	**1,072**	**1,491**
Impairment on goodwill	—	—	—	—	(130)
PROFIT/(LOSS) BEFORE TAX	**2,139**	**1,768**	**626**	**1,072**	**1,361**
Income tax for the period	(404)	(467)	(300)	(404)	(533)
PROFIT/(LOSS) AFTER TAX (CONSOLIDATED PROFIT/(LOSS))	**1,735**	**1,301**	**326**	**668**	**828**
attributable to the shareholder of UniCredit Bank GmbH	1,736	1,301	325	668	811
attributable to minorities	(1)	—	1	—	17
Cost-income ratio in % (ratio of operating costs to operating income, based on segmented income statement since 2022)	44.3	49.9	64.8	60.5	65.4
Earnings per share of full HVB Group (in €)	2.16	1.62	0.41	0.83	1.01

Balance sheet figures (€ billions)	2023	2022	2021	2020	2019
Total assets	283.3	318.0	312.3	338.1	303.6
Shareholders' equity	19.9	19.7	17.8	17.9	18.9

Key capital ratios compliant with CRR II (in accordance with approved financial statements)	2023	2022	2021	2020	2019
Common Equity Tier 1 capital (€ billions)	15.9	16.1	15.2	15.1	15.0
Core capital (Tier 1 capital) (€ billions)	17.6	17.8	16.9	16.8	15.0
Risk-weighted assets (€ billions) (including equivalents for market risk and operational risk)	69.8	82.1	86.9	80.6	85.5
Common Equity Tier 1 capital ratio (%)	22.7	19.6	17.4	18.8	17.5
Core capital ratio (Tier 1 ratio) (%)	25.2	21.6	19.4	20.9	17.5

Employees / Branch offices	2023	2022	2021	2020	2019
Employees (in full-time equivalents)	9,620	10,866	11,406	12,074	12,194
Branch offices	371	430	461	480	498

With effect from 15 December 2023, UniCredit Bank AG was transformed into UniCredit Bank GmbH by way of a change of legal form pursuant to Section 190 ff of the German Transformation Act (Umwandlungsgesetz – UmwG).

Explanations of the individual items/key figures can be found in the respective annual report.

Contact

Contacts

Should you have any questions about the annual report or our half-yearly financial report, please contact Media Relations by
calling +49 (0)89 378-25801,
faxing +49 (0)89 378-3325263
You can call up important company announcements as soon as they have been published by visiting our website at www.hvb.de

Internet

You can call up interactive versions of our annual and half-yearly financial reports on our website: www.hvb.de

Publications

Annual Report (English/German)
Half-yearly Financial Report (English/German)
You can obtain PDF files of all reports on our website: www.hvb.de

Corporate information

Board of Directors, Board of Statutory Auditors, and External Auditors as at 31 December 2023

Board of Directors

Chairman Pietro Carlo Padoan

Deputy Vice Chairman Lamberto Andreotti

CEO Andrea Orcel

Directors Vincenzo Cariello, Elena Carletti, Jeffrey Alan Hedberg, Beatriz Lara Bartolomé, Luca Molinari, Maria Pierdicchi, Francesca Tondi, Renate Wagner, Alexander Wolfgring

Secretary of the Board of Directors
Gianpaolo Alessandro

Board of Statutory Auditors

Chairman Marco Rigotti

Standing Auditors Antonella Bientinesi, Claudio Cacciamani, Benedetta Navarra, Guido Paolucci

Manager charged with preparing the financial reports
Bonifacio Di Francescantonio

External Auditors

KPMG S.p.A.

UniCredit S.p.A.
A joint stock company

Registered Office and Head Office:
Piazza Gae Aulenti, 3 – Tower A – 20154 Milano, Italy

Share capital €21,277,874,388.48 fully paid in

Registered in the Register of Banking Groups and Parent Company of the UniCredit Banking Group, with cod. 02008.1 Cod. ABI 02008.1

Fiscal Code, VAT number and Registration number with the Company Register of Milan-Monza-Brianza-Lodi: 00348170101

Member of the National Interbank Deposit Guarantee Fund and of the National Compensation Fund

Stamp duty paid virtually, if due – Auth. Agenzia delle Entrate, Ufficio di Roma 1, No.143106/07 of 21.12.2007

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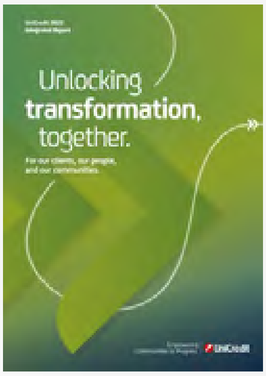
Overview



Download our UniCredit 2023 Integrated Report

See the microsite

See all the milestones that have helped make this a year of powerful transformation for UniCredit

See the microsite

Who we are

UniCredit is a pan-European Commercial Bank with a unique service offering in **Italy, Germany, Central and Eastern Europe**. Our purpose is to empower communities to progress, delivering the best-in-class for all stakeholders, unlocking the potential of our clients and our people across Europe.

We serve over **15 million customers** worldwide. They are at the heart of what we do in all our markets. UniCredit is organised in four core regions and three product factories, Corporate, Individual and Group Payments Solutions. This allows us to be close to our clients and use the scale of the entire Group for developing and offering the best products across all our markets.

Digitalisation and our commitment to **ESG** principles are key enablers for our service. They help us deliver excellence to our stakeholders and creating a sustainable future for our clients, our communities and our people.

Where we operate

15m
customers worldwide

4
coverage regions

13
leading banks

A. Central Europe includes Austria, Czech Republic, Hungary, Slovakia and Slovenia.
B. Eastern Europe includes Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Russia and Serbia.

What we do

At UniCredit we are building the **bank of Europe's future**. A bank that delivers consistently for our stakeholders and empowers people, business and communities across Europe to progress.

This year we were unrelenting in our execution of **UniCredit Unlocked**, a strategic plan which is transforming our bank and enabling us to set a new industry benchmark.

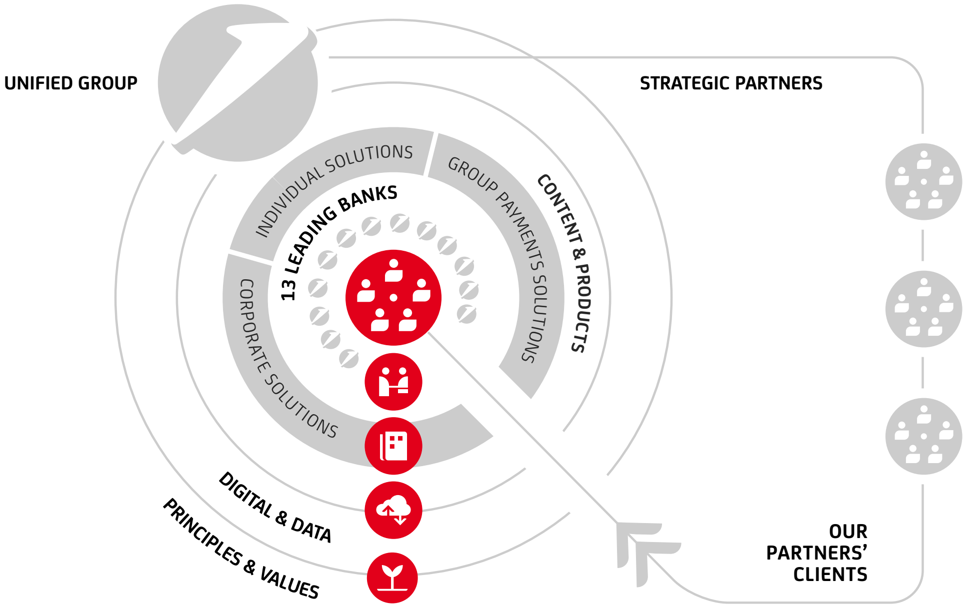
At its core, this is about putting **clients firmly at the centre of all we do**. For our clients we are a gateway to Europe, providing them with best-in-class solutions, strategic advice and innovation.

We deliver **competitive products and services** that create significant value for over one million SMEs, corporate, multinational corporates, financial institution and public sector clients – as well as 15 million retail, private banking, wealth management and family office clients across the Group.

As a result of **three years of transformation**, we have brought our thirteen banks together, leveraging their scale and reach across Europe to deliver competitive value-added services to our clients that are customised to their local needs. The strength of **two outstanding global product factories** – Corporate Solutions and Individual Solutions – is fundamental to this.

Our **simplified business model** and all our decision-making is driven by UniCredit's values of **Integrity, Ownership and Caring**. By embodying these values every day, we have become a true partner to our clients and an engine of social and economic progress in Europe. Today we are operating as one bank, leveraging our **pan European footprint** and the **strength of our workforce** to offer the very best to all our stakeholders: our clients, our people and our communities.

The impact of our transformation is clear – evidenced not only by our **strong financial performance** and **quality growth**, but the value we have unlocked within our bank and for all our stakeholders. This report outlines our achievements in 2023, a year which is the culmination of three years of transformation and has set up UniCredit for future success.



Our unique and diverse talent base

International mindset

International presence in BoD (%)

33

International presence in Group Executive Committee (GEC) (%)

62

Employee Networks on 5 diversity strands and broader D&I across Group countries

Gender balance

BoD (%)

Female 42 | Male 58

GEC (%)

Female 46 | Male 54

Leadership team (GEC+GEC-1) (%)

Female 35 | Male 65

Data as at 31/12/23.

“The world may be uncertain, but our vision for UniCredit has never been clearer.”

Pietro Carlo Padoan
Chairman UniCredit S.p.A.

Dear Stakeholders,

It is a pleasure to write to you as the Chairman of the UniCredit Board.

A little over two years ago, when we launched our new strategic plan UniCredit Unlocked, the world was beginning to build back its confidence and strength after the outbreak of COVID-19 in the previous year.

We embarked on an ambitious plan that would fundamentally change our banks across Europe and align our employees towards a new vision for UniCredit – to be the bank for Europe's future.

What we could not have anticipated is the ways that the world has transformed radically since then. The effects of the pandemic have now been compounded by the outbreak of international conflicts and resultant shocks to global markets, creating a macroeconomic environment characterised by high-interest rates, soaring inflation, and pervasive uncertainty.

Yet, while the world has continued to transform, so has UniCredit. Despite the turbulence of recent years, we have maintained our commitment to our transformation across UniCredit's 13 banks – to uniting behind our cultural values and shared purpose, to unlocking the strength within our Bank, to empowering communities to progress.

As a result, UniCredit has delivered 12 quarters of profitable growth while undertaking numerous initiatives to support our European communities, such as the financial resources worth a total potential value of 10 billion euros we issued for 'UniCredit per l'Italia' and our partnerships with Teach for All and Junior Achievements Europe.

Chairman's letter

And we are far from done. We are a better, stronger bank, more capable of foreseeing and reacting to geopolitical instability and shocks. We are in a position where we can act, rather than react. But our transformation is not over yet. We must use the advantage we have gained to build on our progress, so we are able to support our clients through whatever new challenges may arise.

We are in an evolutionary period – a time of transformation and flux, created by this uncertain environment. Businesses that are proactive, mobilising their human capital and cultural heritage in combination with strong governance, will avoid being overwhelmed by changes in the environment and continue to create value for clients. In the last year, UniCredit decided to adopt a one-tier system to enable more open, transparent decision making, which we believe will translate to better results for our clients.

Ownership and control are essential to the continued prosperity of our communities, particularly at this moment in time. This is as true in politics and society as it is in business. All of these form links in a chain of governance, and each link in the chain must perform its duties responsibly and adequately to ensure their mutual wellbeing.

Part of the reason for the success we have enjoyed, and which has helped us to support Italy through this period of instability, is that Italy has performed better than had been anticipated economically. We are seeing tangible progress being made, as demonstrated by the success of the NRRP.

By continuing to act as a strong link in the chain of governance, we can support the ongoing recovery of Italy and other European countries, as part of our wider ambition to be the bank for Europe's future. Through initiatives such as NextGenerationEU, for example – a recovery instrument that aligns with our own digital innovation and ESG-conscious ambitions, and which we have already supported – we will be able to catalyse the growth Europe needs, giving it the financial stability and resilience to become a major economic bloc.

We will facilitate this through our own stable and sustainable transformation – by keeping firm our dedication to delivering our best for UniCredit's clients and communities across Europe, which is the reason why we are here today. We just need to keep going.

To all of my colleagues in UniCredit, I want to thank you for your diligent efforts. I also wish to thank our CEO Andrea Orcel for his leadership, which has had such a transformative effect on UniCredit, and the Board for their guidance. Their knowledge, experience, and fostering of a culture of ownership and responsibility within our Bank have been invaluable. I know they will enable us to accomplish even greater things in the future.

For our clients, for our communities, for Europe, let us show the world what the bank for Europe's future looks like.

Yours sincerely,

Pietro Carlo Padoan
Chairman UniCredit S.p.A.


Credit: Andrea Cherchi

"2023 was a remarkable year and the product of three years of transformation. There will no doubt be challenges ahead in 2024, but I am confident in the direction our bank is taking."

Andrea Orcel
Chief Executive Officer UniCredit S.p.A.

Dear Stakeholders,

2023 was the best year in UniCredit's history and the crowning achievement of our first three years of transformation.

It will be remembered as the year we surpassed the targets we set at UniCredit Unlocked, and emerged as a better, stronger bank as a result. One capable of being the bank for Europe's future.

We are no longer a bank that settles for less. We have built a culture of excellence that puts our clients at the centre and prioritises long-term value creation over short-term gain.

This has been driven by a cultural and industrial transformation, which has redefined the way our bank operates. Before, there was no 'one UniCredit'. There were 13 disparate banks that lacked common principles, values and a clear strategy and were falling short of their potential.

Now our bank is united behind one vision, with all its parts operating in lockstep with the interests of the Group and Europe as a whole. A model that now empowers our people and gives our clients what they are asking for.

2023 was truly the year we came together behind one purpose and vision and executed an ambitious strategy that has propelled us from a laggard to a leader.

Surpassing our targets

Despite a challenging macroeconomic backdrop, 2023 was the year we surpassed targets that some thought impossible a year ago.

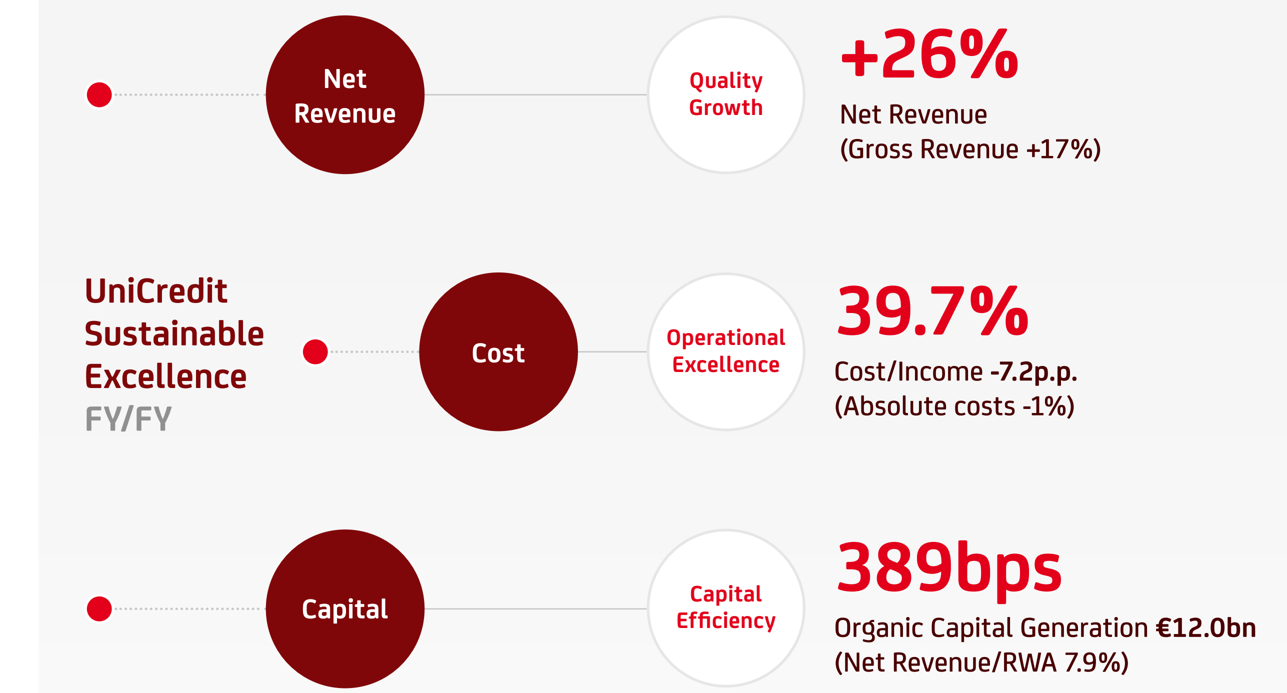
We achieved a RoTE of 16.6% (20.5% when correcting for the excess capital that we carry at 13% CET1).

Our net revenues stood at €23.3 billion – an increase of 26% year on year. This was mostly driven by exceptional net interest income and resilient fees while maintaining a low cost of risk.

We have enhanced our three product factories – corporate solutions, payments solutions, and individual solutions – to deliver best-in-class products for our clients at scale. As a result, our factories generated €9.9 billion in 2023, down 2% despite challenging market conditions.

We are now in our twelfth quarter of year-over-year profitable growth driven by outperformance across each of our three core financial levers, achieving the best results in UniCredit's history.

FY23 Highlights across our 3 levers

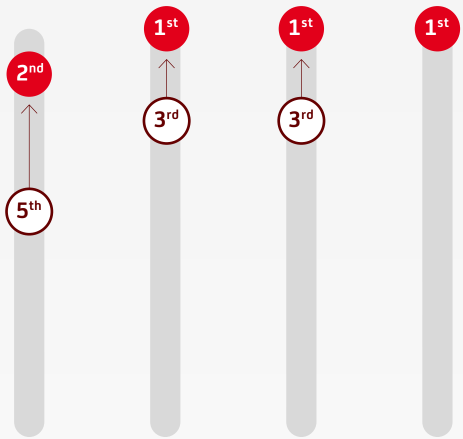



UniCredit
Credit: Andrea Cherchi

In comparison to our peers, we have best-in-class top-line growth, operating efficiency, and unrivalled organic capital generation. We have one of the highest CET1 ratios, one of the highest RoTE (the highest when corrected for our excess capital at 13%), quality credit portfolio and coverage, and the highest forward-looking precautionary overlays.

Superior performance vs. peers across all levers

Net Revenue/ RWA	Cost/ Income	NOP/ RWA	Organic Capital Generation
2nd from 5th	**1st** from 3rd	**1st** from 3rd	**1st** confirmed



FY22 **FY23**

Peers and UniCredit stated figures based on publicly available data
Peers and UniCredit stated figures based on publicly available data. Selected peers: BBVA, BNP Paribas, Commerzbank, Credit Agricole S.A., Deutsche bank, ING, Intesa Sanpaolo, Santander, Société Générale.

After three years of transformation, our RoTE has tripled, our net profit is over 2.5x compared to 2017-2019 averages[1], and we have delivered over €27 billion in organic capital generation. We distributed €17.6 billion over three years, which is equal to our market cap at the beginning of 2021.

This year alone we have generated €12 billion in capital organically, underpinning our proposed distribution of €8.6 billion (100% of net profit) in the fourth quarter – €3.0 billion dividends and €5.6 billion share buyback – while reinforcing our CET1 ratio by c.100 basis points to 15.9%.

In 2023 we delivered on the €5.25 billion commitment made in our FY22 shareholder distribution programme, and front-loaded the execution of a €2.5 billion share buyback as part of the FY23 distributions.

At the same time, per-share value creation has reached even greater heights, more than tripling EPS versus our historical run-rate, with DPS nine times higher, and tangible book value per share up almost a half.

The financial targets we have met and exceeded have not been at the detriment of our ESG commitments, which are embedded firmly in our business model.

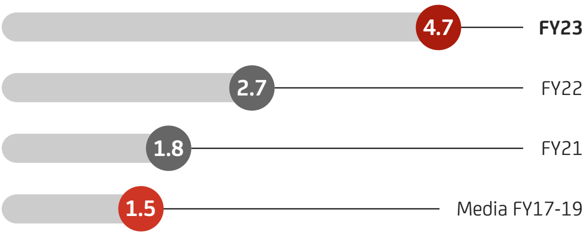
With a unique pan-European footprint, we have a responsibility to pursue a fairer, greener future.

We remain steadfast in our commitment to reach net zero by 2050 and in 2023, we became a single-use plastic-free bank and lent €7.6 billion in environmental loans.

The Social dimension of ESG continues to be a priority for UniCredit, and we are leading by example with €3.8 billion of social financing and €60 million of social contribution.

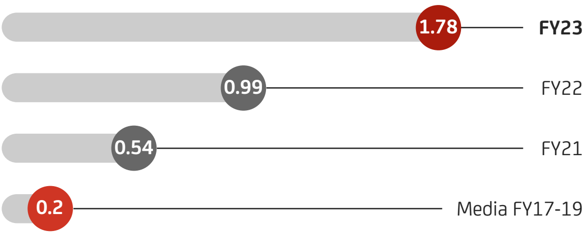
1. For comparison purposes the FY17-19 net profit is the simple average of Net profit recast figures for Group excluding Turkey and Fineco.

Propelled per share values



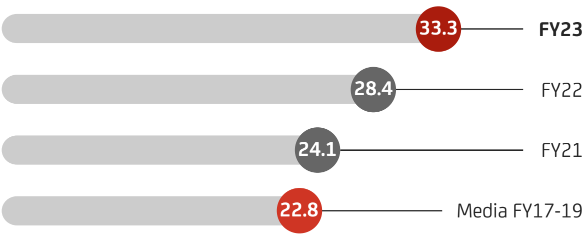
+3.1x

EPS[1] (€)



9.0x

DPS (€)



+46%

TBVPS (€, EoP)

1. Net Profit for FY22 and FY23 is stated net profit adjusted for impacts from DTAs tax loss carry forward resulting from sustainability test. The result is used for cash dividend accrual / total distribution. Underlying net profit for FY21. For comparison purposes the FY17-19 net profit is the simple average of Net profit recast figures for Group excluding Turkey and Fineco.

Our winning approach continues

There will no doubt be challenges ahead in 2024, but I am confident in the direction our bank is taking.

2023 was a remarkable year and the product of three years of transformation.

Every target we've set, we've exceeded, and now we are a leading European bank that is delivering consistently for its stakeholders. This would not have been possible without the belief, trust and hard work of thousands of people who work at UniCredit.

Our challenge now is to go beyond these record results and continue the performance of the past three years.

We must work to sustain our winning approach, defend our record financial performance, and set the stage for the next phase of UniCredit's growth.

We are now a leader in banking and we aspire to become champions. I have no doubt in our ability to do this.

Yours,

Andrea Orcel
Chief Executive Officer UniCredit S.p.A.

A year of powerful transformation

Together, every change we make, every month of the year, throughout all our businesses across all our geographies, all contributes to delivering the biggest transformation in our history.

Review all our milestones online

See the microsite

» January

Becoming the main sponsor of the San Carlo Theatre in Naples
Supporting culture and territorial social growth

Building new hospitals in Angola
UniCredit provided loans for three new hospitals

UniCredit named one of the Top Employers in Europe

UniCredit launched Bank iD service
Making everyday life more convenient for our clients in the Czech Republic

Introducing the euro as Croatia's official currency

UniCredit underwrites €7 billion acquisition of GD Towers from Deutsche Telekom

Key to icons

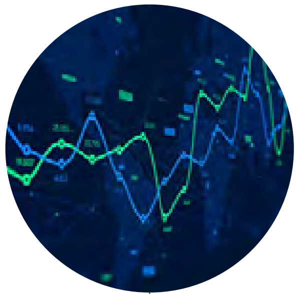
- Strategy
- Finance
- Clients
- People & Culture
- ESG
- Digital & Data
- UniCredit Foundation

UniCredit included as one of the Equileap Top 100 gender equality companies
Positive recognition for our efforts across the bank

Integrated Report
Human Capital

100% single-use plastic free bank
Reducing the use of millions of plastic bottles in a single year

Eni and UniCredit partner around Open-es
An open alliance for sustainable growth and collaboration



February

March

Net zero targets set for carbon-intensive sectors

Project financing for Enel's 3SUN photovoltaic Giga Factory
Supporting the expansion of what will become Europe's largest factory of high-performance bifacial photovoltaic (PV) modules

Launch of our first Group-wide Volunteering Community
Encouraging our employees to contribute one working day each year

Integrated Report
Human Capital

2023 Milestones Timeline

Supporting Gerresheimer's growth plan in Germany
Helping to raise €272 million in capital for High Value Solutions and Medical Devices

UniCredit Bulbank opens completely cashless branches
Supporting the shift to a cashless society in Bulgaria

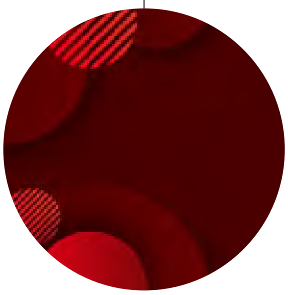
» April

Share buy-back programme
€3.343 million share buy-back programme receives approval

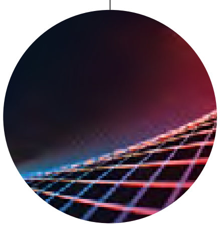
Integrated Report
Financial Capital

» May

1Q



Growing our partnership with Mastercard
A first for a large commercial bank in Europe – putting in place, an at scale single card multi market strategy



Relentless transformation
9th consecutive quarter of profitable growth and best 1Q ever

UniCredit acted as financial advisor to Dufry

Supporting them with the acquisition of Autogrill SpA

Launch of a Global Bank Insurance platform with Allianz

Aimed to renew the commercial offer of more than 20 insurance products

Integrated Report
Intellectual Capital

2nd tranche of UniCredit per l'Italia

Supporting the disposable income of individuals and households, and liquidity of Italian businesses

Integrated Report
Social and Relationship Capital

» June

Sponsoring Pride parades in Milan, Vienna and Munich

Reinforcing our strong commitment to diversity, equity and inclusion and support to the LGBTQIA+ community

Integrated Report
Human Capital

2nd edition of our Culture Day

Reflecting on our cultural transformation results

€292 million IPO for Ferretti

The first ever Hong Kong and Italian dual listing

2023 Milestones Timeline

» July

Launch of €1 billion Green Bond for the Federal State of Hesse
Supporting this pioneer in green financing in Germany

Integrated Report
Natural Capital

UniCredit and Trustpair announce partnership around IBAN check
Tackling fraud in B2B payments to protect our clients

Launch of 'Re-power your future' with Junior Achievement Europe
A €6.5 million program to empower youth and prevent early school leaving

Integrated Report
Social and Relationship Capital

Another record breaking set of results
Best 2Q and 1H ever

2Q

MSCI upgrade UniCredit's ESG rating to 'AA'
In recognition of the banks efforts to mitigate social risks and the robust integration of ESG practices

Hidroelectrica IPO in Romania
UniCredit acted as Joint Bookrunner in what was the largest IPO in Europe in 2023

Sponsorship of the Louis Vuitton 37th America's Cup
As both a Global Partner and the exclusive Global Banking Partner

Installation of an innovative tree irrigation system
At our HQ in Hungary where we are now irrigating around 200 surrounding trees

» August

» September

Publication of our Sustainability Bond Report
Setting out how our bonds have funded renewable energy, green buildings and social impact initiatives

Renewing our main partnership for Filarmonica della Scala's 2024 season
Helping to foster musical excellence and culture in Italy and beyond

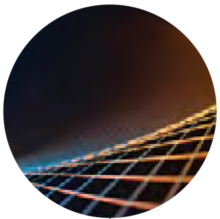
Integrated Report
Social and Relationship Capital

» October

onemarkets Fund celebrates its first anniversary
A family of eighteen funds with €3 billion of assets under management

UniCredit and Alpha Services and Holdings, announce merger
Creating a strategic partnership in Romania and Greece

Continuing to deliver quality profitable growth while investing for the future



3Q

» November

Opening of our Innovation Hub in Germany
Creating a place where employees can actively shape the future of the bank

UniCredit Foundation and Teach For All renewed partnership
Furthering our commitment to boosting education and teaching

Integrated Report
Social and Relationship Capital

The launch of the UniCredit's Art Collection website
Making art accessible for all and drawing on our long tradition of supporting arts and culture

Integrated Report
Social and Relationship Capital

Our inaugural ESG Day
With our mission of Empowering a Just and Fair Transition we fostered new dialogues and raised awareness

» December

€100 million+ Equity Private Placement for D-Orbit
The largest in Italy in 2023

Winner of the Global EDGE Certification for gender equity and inclusion
The first pan-European bank to win this certificate

Launch of our first ever Kids4Kids & Donation Day
Supporting children in need across Europe

Our transformation continues into 2024

Bank of the Year
In a first for the bank we were hailed as Global 'Bank of the Year' for 2023 by The Banker

4Q

Our transformation journey: record breaking results, sights set on new heights

Our UniCredit Unlocked strategy

UniCredit Unlocked is a unique strategy which delivers for the present while transforming our bank for the future.

UniCredit Unlocked is aimed at reuniting a network of 13 independent banks into a cohesive pan-European leading entity, leveraging local strengths and harnessing collective capabilities through the centralization of products and technology.

Despite the continued macro challenges and economic and geopolitical uncertainty since day one of UniCredit Unlocked, we have demonstrated **excellent progression and delivered remarkable results in industrial and financial transformation**.

Two years into our strategic plan, **UniCredit is united around a clear purpose and vision: empowering communities to progress while becoming the Bank for Europe's future and setting a new benchmark for banking**. It is a transformed bank, moving at unprecedented pace, ready to face and take advantage of the future.

The overarching aims of the UniCredit Unlocked plan are to:

Continuous execute of our **winning strategy** that delivers for our stakeholders

Relentless focus on **industrial transformation**

Balancing three financial levers to steer our **financial plan**

A winning strategy

Our clients
at the centre

- **Streamlined operations and enhanced tools** for fast and leaner processes
- **Decentralised and delegated decision making** to client facing colleagues, within a clear strategy and framework
- **Integrated and diversified service channels** at our clients' disposal, anytime and anywhere
- **Completed best-in-class products offer**, leveraging internal product factories and ecosystem of our partners

Our people
valued and empowered

- **Enhancing empowerment and fostering accountability** at all levels through our culture
- **Unifying the organisation around a common objective, vision and purpose**
- **Investing in people**, through training and hirings in front line, product specialists and tech
- **Building a meritocratic environment** where performance is recognized and rewarded

Our investors
remunerated

- **A unique pan-european champion** made of 13 leading banks, united in One group, leveraging Group solidity and synergies
- **Maintaining balanced focus on sustainable profitability, quality growth, operational and capital excellence and distributions**

In the rest of this report, we explain how we have progressed against our UniCredit Unlocked plan across the following areas:

Financial progress
Page X Read more

Clients
Page X Read more

People & Culture
Page X Read more

ESG
Page X Read more

Digital & Data
Page X Read more

Our industrial transformation priorities

1. **Empowering and unifying** through our culture
2. **Simplifying and delayering,** a new way of working
3. **Rationalising and strengthening** partnerships and procurement
4. **Investing** in our people and **growing** franchise and product factories
5. **Modernising and enhancing** Digital & Data

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Our financial levers

Net revenue

Quality growth

Quality instead of volumes maintaining low expected loss (securing low stable CoR) and capital consumption growing in a capital light way

Cost

Operational excellence

Targeted instead of undifferentiated cost reduction – shrinking and optimizing the center while investing to secure the future

Capital

Capital excellence

Thoughtful capital allocation and active portfolio management **boosting returns on RWAs and capital**

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Our UniCredit Unlocked strategy

Our industrial transformation priorities

1. Empowering and unifying

A common vision, a unifying culture, and a winning mentality: promoting ownership and empowerment

Our approach:

- **Listening as a foundation:** Extensive listening to our stakeholders equally to define a bottom up unifying culture
- **Living by three values:** set of simple yet powerful values embedded in all we do – Integrity, Ownership and Caring
- **Leading by example with concrete commitment:** Living our Culture and ESG principles day by day through a number of initiatives, guided from the Group and proactively proposed by all the colleagues

Key achievements in 2023:

1st

Culture day ever, involving over 30k colleagues organized in all countries' banks

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25 Culture Champions

And 24 sponsors, representing all Countries and areas to spread a positive cultural change

AA

MSCI improved ESG rating

Leading by example

9 green bonds issued since 2021; net zero banking alliance; actively supporting communities

9

Culture Road Shows with 7k colleagues involved, including Group CEO

1st

Bank recognized in LinkedIn Top Companies Italy with a positive, diverse and inclusive environment

400

Ideas collected from our people

€100m

to close gender pay gap and promote diversity and inclusion

1st

Pride Sponsors and 1st ESG Day

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2. Simplifying and delayering

A new way of working, creating a lean, fast and efficient organisation cultivating empowerment within a clear framework

Our approach:

- **Leaner structure:** Delayered organization, tackling visible complexity and unnecessary bureaucracy affecting accountability, daily operations quality and speed, realising significant efficiencies
- **Decisions in the right place:** Empowered people to propose and run the change, simplify tasks and improve automation, freeing up time to focus on value added business activities
- **Acting in a new way:** Everyone embracing a new way of working empowered to take ownership and make decisions and supported by a clear risk and compliance framework

Key achievements in 2023:

400

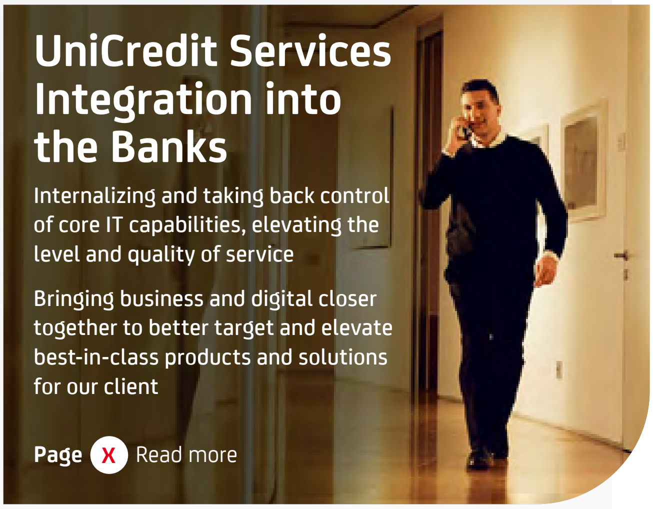
Employees' ideas collected turned into 200 simplification actions

-47%

Reports eliminating duplications

-30%

Reduction in organizational structures



UniCredit Services Integration into the Banks

Internalizing and taking back control of core IT capabilities, elevating the level and quality of service

Bringing business and digital closer together to better target and elevate best-in-class products and solutions for our client

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One

Leaner Corporate Center with unified Digital & Data

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-57%

Committees streamlining

-25%

Simplification of processes based on E2E customer journeys

Our UniCredit Unlocked strategy

Our industrial transformation priorities

3. Rationalising and strengthening

Partnerships and procurement leveraging Group scale and bargaining power, to rationalise supplier contracts and build long-lasting Group relationships

Our approach:

- **Rationalize:** mindset that encourages rationalization of old legacy structures, and equity participations, and leverage Group scale and bargaining power to act in best interest of our clients and realize efficiencies
- **Global ecosystem:** Building long-lasting Global partnerships and relationships with top industry players to further improve our clients' journey, choice and to access our partners clients

Key achievements in 2023:

-55%
Rationalization of insurance partnership (from 9 to 4)

2
Group partnership on AM with Blackrock and Azimut

-20%
Reduction of equity participations

3.5m
Clients accessed through Alpha Bank partnership in Greece

New reinforced partnerships

Allianz, Mastercard, Alpha Bank, Azimut

Contracts renegotiation

Reopening of legacy contracts with unfavorable conditions and negotiation from center in the best interest of our clients

Milestone – October

Alpha Bank and UniCredit: a long term partnership

In October, we announced a long-term partnership with Alpha as an opportunity to grow our footprint in Romania, a high growth country in CEE, and create the third-largest bank in Romania by total assets. The partnership will also further boost our product factories' distribution in the Greek market – asset management and unit-linked products.

4. Growing and investing

In our people on the front-line and our distribution channels, in our franchise and building our product factories, to deliver an unmatched and fully-fledged product offering

Our approach:

- **People and franchise:** Investing in our people on the front-line and in our distribution channels to deliver the best tailored offering to our clients and cascade client insights to our product factories
- **Product factories:** Build up and invest in our factories to deliver an unmatched fully-fledged product offering and to capture capital light growth

Key achievements in 2023:

c.30hr

Training per employee per annum since 2021

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onemarkets

In-house product factory launched with 21 onemarkets funds issued and almost 4bn already distributed at the end of 2023

Built

3 market leading Product Factories: Individual Solutions, Corporate Solutions, Payment Solutions

Global Corporate Portal

Corporates & SMEs Group-wide served through a single entry point and with number of functionalities and self-service features

c.9k

Hirings in business o/w c.90% in the front-line

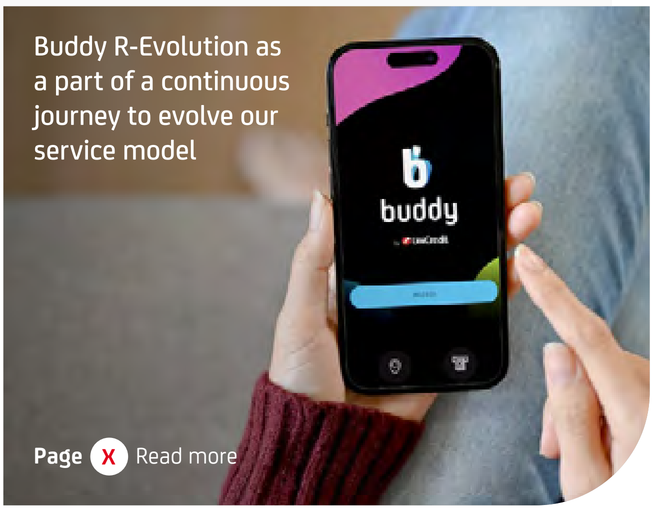
18

Key MDs hired in A&CM since end of 2021

>4m

Inbound calls managed by UCD in Italy in 2023, +23% YoY

Buddy R-Evolution as a part of a continuous journey to evolve our service model



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Our UniCredit Unlocked strategy

Our industrial transformation priorities

5. Modernising and enhancing

Digital and data, taking back control of core competencies, streamlining and enhancing our digital organisation, and standardising and modernising our digital technology

Our approach:

- **Take back control:** Attracting, engaging, and developing talents through involvement in strategic projects, insourcing key competencies and dedicated learning and development
- **Rationalize:** Streamlining and enhancing our digital organization and operating model, while reducing the sourcing model to curb spending
- **Converge:** Standardize and modernize our infra technology, rationalising the geographical footprint while improving our service quality

Key achievements in 2023:

>360
Apps decommissioned

75%
Tech/Non Tech Ratio in Digital & Data

48%
Of Data accessible on Global data platform

c.15%
Digital workforce reskilled

Credit: Andrea Cherchi

>1.3k
Tech hirings since 2022

Corporate Banking Innovation: Rolled-out 3 integrated digital solutions to meet corporate banking needs

Retail banking innovation: Game-changing developments to retail banking customers across mobile banking, cards, investments and loans – making banking quicker, easier and more accessible

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5
Data Centers consolidated

c.35%
Lower external daily rates, through reduction of # vendors

Our financial levers

Our industrial transformation is steered by our financial results. Optimising the balance of our three financial levers: Costs, Net Revenues and Capital, underpins our UniCredit Unlocked strategy. The three levers operate to produce superior returns, deliver best in class organic capital generation and a solid balance sheet.

It is a virtuous circle differentiated versus our peers and very different from the UniCredit of the past.

Quarter by quarter we are demonstrating great results, confirming our quality profitable growth trajectory. Our results are protected by lines of defense and propelled by investments to secure and boost profitability tomorrow.

Consistently re-enforcing our balance sheet to weather a changing macro environment

Uniquely positioned to strengthen or even increase our profitability leveraging our lines of defence to weather any potential shocks and distribution capacity, and support our long-term growth ambitions.

– **A best-in-class capital position**, with CET1 ratio well above regulatory requirements and ample excess capital
– **A solid liquidity position**, with best-in-class LCR and a self-funded balance sheet
– **A high-quality credit portfolio**, with low NPE ratio, prudent coverage, proactive staging, and vigilant origination

Our three financial levers working together

Cost

Operational excellence

Targeted instead of undifferentiated cost reduction – shrinking and optimizing the center while investing to secure optimal capital allocation

39.7%

Cost/Income

Net revenue

Quality growth

Quality instead of volumes maintaining low expected loss (securing low stable CoR) and capital consumption growing in a capital light

26% y/y

Net Revenue Growth

Capital

Capital excellence

Thoughtful capital allocation and active portfolio management boosting returns on RWAs and capital generation

7.9%

Net Rev/RWA

We can distribute 2x our peers for every unit of Revenue without denting capital

16.6%

ROTE

» unicreditgroup.eu

Empowering
Communities to Progress.

UniCredit