DekaBank Deutsche Girozentrale

Annual financial statements 2022

Deka

22

Finanzgruppe

Content

Management report

At a glance

The Deka Group is looking back on a challenging 2022 for both the economy and the public. The war in Ukraine caused energy prices to rocket and inflation to hit historic highs, all while the consequences of the pandemic remained clearly noticeable. In the eurozone, prices surged significantly over the year – including the strongest price rises in Germany since the modern Federal Republic was founded. The European Central Bank threw all its might against the rising inflation and implemented multiple interest rate hikes with the aim of easing the situation somewhat. The rate hikes triggered very significant rises in yields in the space of just a few months.

For Deka, supporting the savings banks and institutional customers remained the focus despite this changed environment. The expert advice offered by the savings banks again helped customers to keep investing in 2022. The Deka Group's total net sales in the 2022 reporting period were well into positive territory at €27.4bn (previous year. €35.7bn). At €20.8bn, net sales in the retail customer segment fell €4.3bn short of the prior-year figure. Retail fund sales were down year-on-year at €8.1bn (previous year: €17.9bn). Sales of certificates to retail customers rose to €12.6bn (previous year: €7.1bn). Net sales to institutional customers came to €6.6bn as against €10.7bn in the previous year. The institutional investment fund business accounted for net sales of €5.9bn, compared with €8.8bn in 2021. While sales in master funds were well into positive territory, there were outflows of funds in the case of advisory/management mandates, partly due to a customer ending their mandate. Certificate sales to institutional customers came to €0.7bn (2021: €1.9bn). The positive overall net sales performance only partially offset the market-induced negative trend in total customer assets. Total customer assets declined by €23.4bn year-on-year to €371.8bn (year-end 2021: €395.1bn). This included distributions (from which customers benefited) and certificate redemptions of together €8.8bn.

See also: Business development and profit performance in the Deka Group: page 26 ff.

Given the favourable development in operating activities and positive valuation effects due to changed market parameters, the Deka Group achieved an economic result of €984.8m. This was significantly higher than the previous year's €847.8m. Excluding the positive net income from own issues and other own credit quality effects in Treasury due to spread developments and actuarial gains on pension provisions (caused by a change in the actuarial interest rate), the economic result came to €741m.

We are satisfied with our business development and profit performance. Our financial strength is allowing us to make targeted investments in key areas for the future, such as digitalisation, turning the Deka Group into an even more customer-focused, innovative and sustainable *Wertpapierhaus*. The result will also ensure that DekaBank is able to distribute profits and also to retain part of these profits to further strengthen its Common Equity Tier 1 capital. Income rose by 10.7% year-on-year to €2,236.3m (2021: €2,019.5m). At €1,251.5m, expenses were 6.8% higher than in the previous year (€1,1 71.8m) due to moderate increases in personnel and other administrative expenses including depreciation and amortisation.

The cost/income ratio was 55.0% (2021: 58.6%). The return on equity before tax (balance sheet) in 2022 was 17.0% (2021: 16.2%). Excluding positive valuation effects, the cost/income ratio came to 61.6%. The corresponding return on equity before tax (balance sheet) was 12.8%.

The Deka Group's financial position remains sound. DekaBank also has one of the best capital market ratings among its peer group of German commercial banks. DekaBank continued to have a very sound capital base in 2022. At year-end, the Common Equity Tier 1 capital ratio stood at 17.4% (year-end 2021: 15.2%). At 59.9%, utilisation of risk appetite was higher than at year-end 2021 (43.3%) but remained at a non-critical level.

Information about the Deka Group

Deka Group profile and strategy

The structure and content of the following passages on the business model and strategy correspond to the relevant sections published in the Group management report of the Deka Group. The business model and strategy are oriented towards the Deka Group, while Group management is aligned with the business divisions, thereby incorporating all business divisions and legal entities. As DekaBank is not separately managed as an individual institution, these sections have not been separately prepared at the individual institution level.

The Deka Group consists of DekaBank Deutsche Girozentrale (DekaBank) and its subsidiaries in Germany and other countries. DekaBank is a systemically important European commercial bank. As the securities service provider (the *Wertpapierhaus*) for the German savings banks, it is part of the *Sparkassen-Finanzgruppe* and looks back on a long history. The Deka Group managed approximately €372bn of customer assets at the reporting date, making it one of the largest providers in Germany.

Legal structure

DekaBank is a German federal institution incorporated under public law with registered offices in Frankfurt am Main and Berlin. It is wholly owned by the German savings banks. 50% of the shares are held via Deka Erwerbsgesellschaft mbH & Co. KG. The savings banks hold their interests via this company, which is owned by their regional savings bank and giro associations. The other 50% of the shares are held by the German Savings Bank and Giro Association (*Deutscher Sparkassen- und Giroverband* – DSGV ö.K.). DekaBank and thus the entire Deka Group are a key part of the *Sparkassen-Finanzgruppe*.

DekaBank is a member of the *Sparkassen-Finanzgruppe* deposit guarantee system. The deposit guarantee system of the *Sparkassen-Finanzgruppe* protects deposits with a savings bank, a state bank (*Landesbank*), DekaBank or a state building society (*Landesbausparkasse*).

Organisational structure

The Deka Group divides its business into five business divisions that bring together similar activities. Asset management activities are handled by the Asset Management Securities and Asset Management Real Estate business divisions. The Group's banking business is covered by the Capital Markets and Financing business divisions. The fifth business division – Asset Management Services – provides banking services for asset management.

The sales units – Savings Banks Sales, Private Banking & Wealth Management, and Institutional Customer Sales – serve as the interface with sales partners and customers. The corporate centres perform essential functions and support the business divisions and sales departments throughout the value chain.

Major companies and locations

The Deka Group's head office is in Frankfurt am Main. Frankfurt is also home to investment management companies such as Deka Investment GmbH, Deka Immobilien Investment GmbH, Deka Vermögensmanagement GmbH and the robo-advisor company bevestor GmbH. A further investment management company – WestInvest GmbH – is based in Düsseldorf. S Broker AG & Co. KG has its registered office in Wiesbaden, while S-PensionsManagement GmbH (in which DekaBank has a 50% shareholding) is headquartered in Cologne.

In Luxembourg, the Deka Group is represented in particular by DekaBank Deutsche Girozentrale Niederlassung Luxemburg and the investment management companies Deka International S.A. and Deka Vermögensmanagement GmbH (Luxembourg branch). The Austrian fund manufacturer IQAM Invest GmbH is headquartered in Salzburg.

Corporate management and supervision

As an institution incorporated under public law, DekaBank is not subject to the German Corporate Governance Code. Nevertheless, the Deka Group strictly adheres to the principles of good and responsible corporate governance.

The guidelines for the management and supervision of the Group ensure that the responsibilities of boards and committees are clearly defined and enable efficient decision-making processes. As a member of the *Sparkassen-Finanzgruppe* (Savings Banks Association), DekaBank is committed to the principles of subsidiarity and a focus on the greater good. Both the company's own Code of Ethics and the risk culture framework are based on this commitment. The Code of Ethics guides the actions of the boards, committees and employees. It is the basis for a corporate culture within the Deka Group that complies with the law, is open and transparent, and seeks to add value. The risk culture framework lays down binding guidelines for the responsible handling of risks in the Deka Group and for compliance among employees, managers and Board members in relation to this.

DekaBank is managed collectively by the Board of Management. The Board of Management takes a holistic approach to managing the Deka Group, always considering the strategic direction and risks.

The Board is divided into divisions, each under the responsibility of a designated member. This ensures a clear distribution of roles and core competencies in the Board of Management.

At the reporting date, the Board of Management consists of six members. The responsibilities are as follows:

- CEO: Dr Georg Stocker
- Deputy CEO & Asset Management: Dr Matthias Danne
- Risk (CRO): Birgit Dietl-Benzin
- Finance (CFO) & Operations (COO): Daniel Kapffer
- Sales: Torsten Knapmeyer
- Banking business: Martin K. Müller

At its meeting in September 2022, DekaBank's Administrative Board extended the appointment of Martin K. Müller as a member of the Board of Management for a further five years to 2028. As the DekaBank Board member responsible for the banking business divisions, his remit encompasses Capital Markets, Financing and the Depositary.

The Board of Management is supported by in-house management committees in an advisory capacity. DekaBank actively incorporates its sales partners' market proximity and expertise via three specialist advisory boards, which advise the Board of Management, and six regional sales committees (securities committees of the regional savings banks).

The Administrative Board oversees the Board of Management and thus performs a supervisory role. It comprises shareholder and employee representatives as well as representatives from the *Bundesvereinigung der kommunalen Spitzenverbände* (German Federal Association of Central Municipal Organisations), who act in an advisory capacity. The work of the Administrative Board is performed in part by the full Board and in part by various committees. To this end, the Administrative Board has established a General and Nominating Committee, an Audit Committee, a Risk and Credit Committee and a Remuneration Supervision Committee. With the exception of the employee representatives and representatives from the *Bundesvereinigung der kommunalen Spitzenverbände*, the members of the Administrative Board are appointed by the Shareholders' Meeting.

The responsibilities of the boards and committees are assigned by the Bank’s statutes. The Administrative Board has adopted rules of procedure and also has a separate fit & proper policy along with guidelines on the handling of conflicts of interest, independence, succession planning for members of the DekaBank Administrative Board and Board of Management, the induction and training of new members and the promotion of diversity on the DekaBank Administrative Board and Board of Management. There are additional rules of procedure for the Board of Management and for the specialist advisory boards and sales committees.

Supervision of DekaBank is exercised by the Federal Minister of Finance.

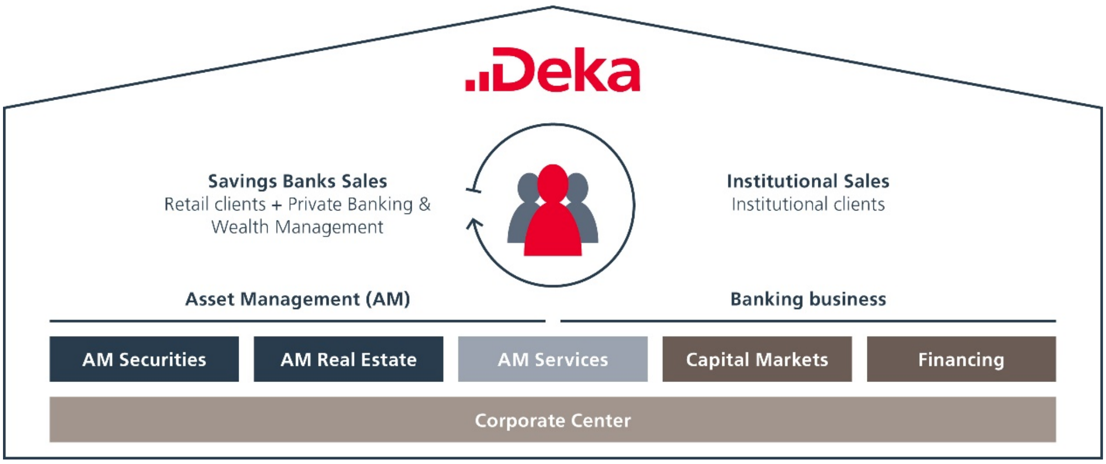
Business model as the *Wertpapierhaus* for the savings banks

The Deka Group is the securities service provider (the *Wertpapierhaus*) for the savings banks. Through its asset management and banking activities, it acts as a service provider for the investment, administration and management of assets, supporting its customers at every stage in the investment and advisory process within the securities business. It also offers comprehensive advice and solutions around investment, liquidity and risk management, and refinancing.

The Deka Group acts as an all-round solution provider, serving customers’ needs without bias towards particular products. This philosophy drives the development of its complete range of asset management and banking services to meet the securities business needs of savings banks and their customers and the targeted sales support it provides as a partner to the savings banks.

The Group’s integrated business model, combining asset management and banking business, ensures stability and competitiveness. The Deka Group divides its business into five business divisions.

The *Wertpapierhaus* for the savings banks at a glance *(Fig. 1)*



All business divisions aim their products and services at the needs of savings banks and their customers, at the interests of the institutional investors acquired and served in partnership with the savings banks and at institutional customers outside the *Sparkassen-Finanzgruppe*.

- The Asset Management Securities and Asset Management Real Estate business divisions focus particularly on fund-based products and services.
- As a banking division, Asset Management Services encompasses banking services for asset management, such as depositary business, custody account business and digital multichannel management.
- The banking business divisions – Capital Markets and Financing – support the integrated model by offering additional investment products and enabling the necessary access to the money and capital markets and to financing. Capital Markets also acts as a service provider for asset management.

In business involving securities funds and real estate funds, the Deka Group primarily earns commission income from management and transaction fees. Subject to regulatory requirements, some of this income is passed on as an "association payment" to the savings banks in their capacity as sales partners. Additional commission income comes from banking transactions, including capital market activities, which also generate net financial income from the trading book. Interest income is obtained primarily from lending business as well as from securities in the banking book (Treasury function).

Customers
The Deka Group puts its primary customers – German savings banks and their customers – at the heart of its activities. This includes the private and individual clients, private banking and business customer segments. To ensure that its products and solutions meets the needs of these customers, it is in regular dialogue with the savings banks. The products in demand from primary customers are also sold to other institutional customers. These particularly include insurance companies, pension funds, family offices, foundations, corporates and the German public sector. Given the Deka Group's close involvement in the savings banks sector and its focus on German institutional customers, its business activities are concentrated on the domestic market.

Product and solution provider
The core business is to provide suitable investments in securities and real estate as well as supplementary services throughout the investment and asset management value chain. In this regard, the Deka Group acts as finance provider, issuer, structurer, trustee and depositary.

In addition to investment products such as securities and real estate funds or certificates, the Deka Group also provides execution of securities trading, custody accounts (DekaBank custody account and S Broker's *DepotPlus* and *DirektDepot*), asset servicing and depositary services. It also offers capital market services for savings banks, such as securities lending or the procurement and settlement of securities and financial derivatives. Advice, support and service processes – e.g. the provision of market analyses and infrastructure services – also form part of its business model. The Deka Group thus works as a solution provider to create further value added for customers and shareholders.

Sales and all-round advice
The Deka Group's services are generally sold by the cross-divisional sales units: Savings Banks Sales, Private Banking & Wealth Management, and Institutional Customer Sales.

Deka takes an all-round approach to helping savings banks sell products and services. An example of this is the close support given to the investment and advisory process within the savings banks. This includes incorporating the product and service offering into customer advice, joint customer-focused activities and in-depth support for savings banks and local advisers. The Deka Group's sales support is fully aligned with the *Sparkassen-Finanzkonzept* – the financial planning strategy offered by the savings banks – and aims to support the savings banks throughout the investment and advisory process.

Position and mission in the *Sparkassen-Finanzgruppe*
The historical development of the Deka Group's predecessor institutions, together with its ownership structure, make it a key part of the *Sparkassen-Finanzgruppe* (Savings Banks Association).

The market position the Deka Group has achieved is being challenged by market and customer trends. We need to respond faster and more accurately to changes in customer requirements and do our utmost to anticipate them. In addition, the Deka Group also needs to address changing markets: changed customer behaviour, digitalisation, sustainability, growing competitive pressure and a continued high level of regulation demand innovative and future-proof solutions, ongoing evolution and a business model consistently focused on customer utility.

The strategic action programme 2025 sets the direction of travel to enhance the Deka Group's position as a customer-oriented, innovative and sustainable *Wertpapierhaus*. This development is focusing on the following elements:

- To address increasing competition and changes in customer behaviour, the Deka Group will continue to position itself as a customer-oriented provider and consistently aim its sales, products and solutions at changing customer needs.

- Digitalisation and targeted innovation are building blocks for customer utility, and the Deka Group aims to lead such innovation in the *Sparkassen-Finanzgruppe*. Consistently capitalising on new technological possibilities and opportunities will make it an innovative partner to its customers for securities-based solutions in the age of digitalisation.

- The Deka Group will continue to actively drive sustainability as a fundamental principle of its work. It recognises the importance of this issue for society and the planet and also sees an opportunity here for growth and future profitability.

- The Deka Group is convinced that employee recruitment and systematic continuing professional development are an important part of successfully driving ahead with its strategic ambitions.

To enable it to respond more quickly and flexibly to the changing requirements of customers and markets, the Deka Group is evolving as a modern and versatile organisation for the future, geared towards customer needs and efficient processes.

Digitalisation
With customer requirements growing further and digital technologies developing at a rapid pace, the Deka Group has further stepped up its digitalisation activities. As the savings banks' *Wertpapierhaus*, the Deka Group is also a key partner for the savings banks in this context when it comes to all aspects of securities services. For example, it enables savings banks and their customers to offer competitive, digital customer journeys in the securities business, implements innovative products and services and uses digital technologies to improve process quality and efficiency.

The digitalisation activities have three strategic thrusts:

- Digitalising the end-to-end (E2E) customer journey: The Deka Group sees its role as helping the savings banks provide and secure their customer interface in the securities business throughout the value chain. Central to its success here is making its services simpler and easier to use and enabling digital customer journeys that work across a customer's different devices and locations. This involves not only a modern customer front end but also the provision of seamless end-to-end processes for transactions and other services, making it easier for savings banks and their customers to access the securities business digitally. The savings banks' offering for their end customers is being constantly improved with this aim in mind. This particularly includes the S-Invest app but also the "internet branch" and other customer channels such as S Broker and bevestor. The collaboration between the savings banks and Deka has also been put on a completely new footing with the new S-Invest Manager sales platform. The platform supports the savings banks with securities business, all the way from planning to sales and controlling. S-Invest-Manager is based on a cloud solution developed by Deka itself, which was built on the existing core IT architecture. Similar platform services are already available for the Deka Group's institutional customers.

- Digitalising products and services: With the development of distributed ledger technology, digitalisation has well and truly reached the product itself and no longer relates solely to the sales channel. Digital assets have the potential to make a wide range of investments easier and cheaper for customers to access, to substantially streamline value chains and to overcome the fragmentation of capital markets in Europe. The Deka Group therefore sees digital or "tokenised" assets as a growth market for the future. Given its business model as the *Wertpapierhaus* for the savings banks, Deka's focus here is on digital or "tokenised" securities. The European Central Bank (ECB) puts the value of euro-denominated securities (excluding equities) in circulation at more than €20 trillion. Digitalisation even of just a part of this market therefore has enormous financial significance. Deka is also working intensively on the tokenisation of real assets (e.g. real estate).

  The Deka Group is therefore leading the redesign of products, processes and IT platforms within the *Sparkassen-Finanzgruppe*. In digital products and digital product development, the focus is on building and expanding digital assets and their infrastructure and on providing corresponding offerings and solutions for customers. In 2022, for example, DekaBank applied for approval to maintain a crypto securities register and offer custody of crypto assets.

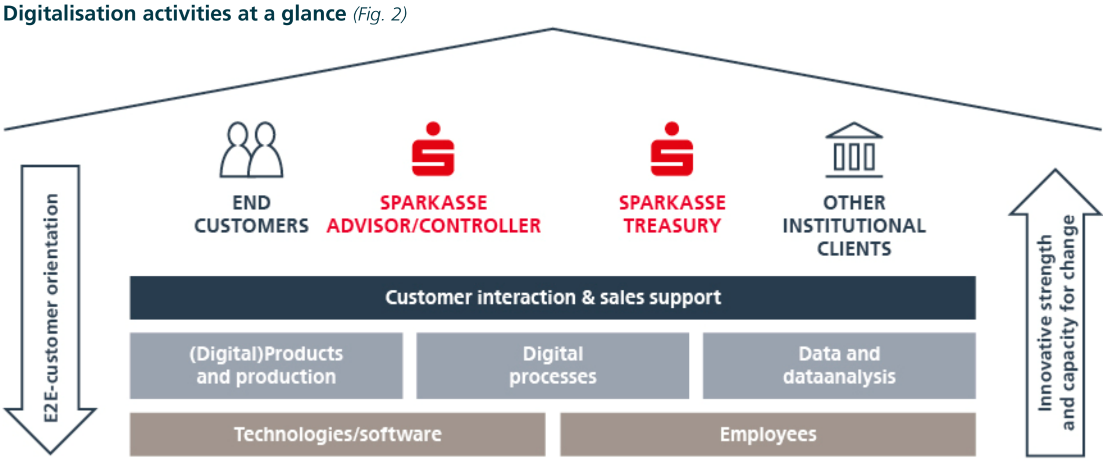
  With SWIAT (Secure Worldwide Interbank Asset Transfer), the Deka Group has a major involvement in a new company developing a blockchain-based decentralised financial infrastructure. SWIAT aims to develop an international network for digital assets, traditional securities and digital services, which it will use to develop a standardised, scalable and decentralised settlement and custody infrastructure for blockchain transactions. SWIAT GmbH began operations on 1 February 2022 as a wholly owned DekaBank subsidiary.

  Alongside digital assets, the Deka Group is also exploring the use of artificial intelligence in the context of investment decisions.

  Deka is currently building the Dekaverse, its virtual presence in Decentraland – a metaverse in which many international companies are represented. The goal is to gather experience at the earliest possible stage so as to strengthen Deka's position and act as a point of contact within the *Sparkassen-Finanzgruppe* for the topics of the future.

- Digitalising business processes and infrastructure: The digitalisation of existing business and IT processes – including core, management and support processes – is being driven both by the development of digital business models and the desire to improve these processes' efficiency and resilience. Moreover, process digitalisation is essential to offering completely digital customer journeys that do away with complex, paper-based processes. A technology services kit has been created for use in digitalising processes. Key digital technologies such as cloud computing are also creating more modern and efficient IT processes.

Digitalisation activities at a glance *(Fig. 2)*



Sustainability

As the *Wertpapierhaus* for the savings banks, the Deka Group is helping the *Sparkassen-Finanzgruppe* to get ready for the future. The "Target vision 2025 – Guidelines on sustainability in savings banks" (*Zielbild 2025 – Leitfaden zur Nachhaltigkeit in Sparkassen*) provides a comprehensive roadmap for implementing more sustainability. In keeping with regulatory requirements, the Deka Group understands sustainability as an ongoing process to fully integrate ESG criteria (climate and environmental (E), social (S), and governance (G) aspects) into the business model. This applies in equal measure to customers, to Deka's expectations of itself and to its public engagement.

In its role as the *Wertpapierhaus* for the savings banks, the Deka Group puts customers' needs front and centre. Using a wide range of products with sustainability characteristics, from investments in securities and real estate to financing solutions, it helps its customers achieve their ambition of financing and investing in a climate-friendly and sustainable way.

The Deka Group's sustainable positioning as an organisation enables it to respond to risks and opportunities. This involves integrating sustainability considerations into structures and workflows in line with ESG criteria. Potential sustainability risks in relevant business processes are systematically identified and managed. Regulatory requirements are reliably implemented with a long-term focus. The Deka Group wants to be perceived by all its staff as a fair, flexible and attractive employer and has an open and participatory management culture. It values the diversity of its teams. Employees are actively involved in shaping Deka's future as a sustainable organisation.

The Deka Group's sense of social responsibility is reflected in its actions. It is supporting the transformation to more climate-friendly and sustainable ways of doing business. As an active investor, it follows this through by engaging in dialogue with investors, businesses and issuers to help them with the steps to achieving their sustainability goals in close alignment with its own guidelines. Following in the tradition of the savings banks and their focus on the greater good, the Deka Group supports social, environmental and cultural projects.

The Deka Group's positioning in terms of sustainability, which Deka has been building on continuously since 2009, continues to be rated very highly by sustainability rating agencies.

Sustainability ratings at a glance *(Fig. 3)*

Status of sustainability ratings according to annual ESG ratings reports: MSCI: 10 June 2022; ISS-ESG: 22 June 2020; Sustainalytics: 10 August 2021; update 21 December 2022; MOODY'S ESG (rebranding following acquisition of V.E): May 2021
* Copyright ©2022 MSCI, ** Copyright ©2021 Sustainalytics.

Further information on sustainability is available in the Deka Group's 2022 sustainability report.

Reference to the non-financial statement in the sustainability report

The sustainability report, which is audited by AGIMUS GmbH Umweltgutachterorganisation & Beratungsgesellschaft, contains detailed information on the Deka Group's ESG reporting. It includes the Deka Group's non-financial statement pursuant to the German CSR Directive Implementation Act (*CSR-Richtlinie-Umsetzungsgesetz* – CSR-RUG). The declaration sets out, in particular, targets, measures and due diligence processes in the areas that are significant to the Group's business model. Under the CSR-RUG, these include environmental, social and employee concerns as well as the upholding of human rights and the combating of bribery and corruption. The content of the Deka Group's sustainability report also reflects the extensive information interests of sustainability rating agencies and other stakeholders.

See also: 2022 sustainability report

The annual sustainability report including the non-financial statement does not form part of the Group management report. In accordance with the statutory publication deadlines, it is published by the end of April each year on the Deka Group website (https://www.deka.de/deka-group/our-responsibility/how-we-practice-sustainability/sustainability-reports-and-ratings), where it will remain accessible for at least ten years.

Business divisions, sales units and corporate centres

There is a clear separation in the Deka Group at Board of Management level between asset management and banking. Nevertheless, the business divisions, sales units and corporate centres work closely together in operational terms, reflecting the integrated business model. The business divisions form the basis for the Deka Group's segment reporting under IFRS (International Financial Reporting Standards) 8.

Asset Management Securities business division

The Asset Management Securities business division offers high-quality asset management solutions for private and institutional investors in every market environment with the goal of lasting value and sustainable growth. Responding to the customer requirements identified via the central sales units, the business division creates solutions to meet these needs for all sales channels, increasingly including digital sales.

Customers can choose from the following range of products for one-off investments or, where available, for savings plans:

- actively managed mutual funds and special funds following fundamental and quantitative strategies as well as advisory mandates in all major asset classes (equities, bonds, money market, mixed funds, capital protected funds and any combination of these),
- passively managed index funds (exchange-traded funds – ETFs),
- asset management products and services: asset management funds using both actively managed target funds and indexed funds, fund-based asset management, savings bank asset management, individual security-based asset management and robo-advisory asset management in partnership with bevestor,
- pension products (e.g. fund-based private and company pension products),
- asset servicing, which enables savings banks and institutional investors to combine various asset classes in master funds.

The business division also offers a wide range of solutions for sustainable investments and engagement services. This includes mutual fund solutions and individual services for institutional mandates such as sustainability portfolio management. The business division also works to promote good and responsible corporate governance and helps institutional investors comply with regulatory engagement and reporting requirements. The Asset Management Securities business division incorporates sustainability aspects into fund, investment and business risk processes.

The products offered by the fund manufacturer IQAM Invest GmbH (IQAM) expand the range of quantitative asset management products, particularly for institutional customers. The well-known IQAM brand will continue. Joint research by Deka and IQAM is conducted at the IQAM Research institute and is used in depth in order to improve quality.

The business division's product range also features bespoke and standardised securities services. These involve macro, individual-stock and fund research, support with designing investment strategies and processes, order desk and fund reporting services. These are also offered to external customers in some cases.

Asset Management Real Estate business division

The Asset Management Real Estate business division is the Deka Group's real estate investment specialist. It provides fund products and advisory services relating to real estate, infrastructure or real estate financing for the customer and proprietary business of savings banks and other institutional investors. The division concentrates on the office, retail, hotel and logistics segments in Europe as well as selected locations in North and South America and the Asia-Pacific region.

The product range comprises:

- open-ended real estate mutual funds,
- open-ended and closed-ended special funds,
- real estate and infrastructure funds of funds,
- credit funds that invest in real estate, infrastructure or transport financing,
- residential property funds offered together with experienced external partners,
- advisory services for investments in real estate products.

Fund products are subject to appropriate cash flow management for the purpose of lasting risk limitation and reduction.

The division's services comprise the purchase, sale and management of real estate and all other real estate services, as well as the growth-oriented development of marketable commercial properties in liquid markets, and active portfolio and risk management. As part of the *Deka Immobilien-Kompass* service, the division offers savings banks and other institutional investors an extensive modular service package aimed at real estate fund investment. It thereby positions itself as a strategic partner to institutional investors.

In order to fully address environmental and social aspects and meet investors' expectations, the Asset Management Real Estate business division is gradually expanding its range of products with sustainable features and taking sustainability aspects into account in fund and investment processes.

Asset Management Services business division
The Asset Management Services business division provides banking and other services that complement the offerings of the asset management divisions with asset management and online brokerage. Its services range from supporting the savings banks' sales with the provision of multichannel solutions to managing custody accounts for customers and providing custodial services for investment funds.

The Asset Management Services business division is divided into the Digital Multichannel Management and Depositary subdivisions.

- The Digital Multichannel Management subdivision develops and implements digital solutions for the savings banks' securities business via all channels including the "internet branch" and for the savings bank apps (e.g. S-App and S-Invest App). The Deka Group provides the savings banks with a multi-platform online securities offering, including stock exchange and securities information tools, enabling multi-channel customers to complete transactions seamlessly using various channels. DekaNet acts as the central information and sales platform, offering automation solutions that enable processes to work efficiently. OSPlus neo – the central software solution for the savings banks – is used to provide and enhance the relevant securities processes. In the retail segment, the subdivision takes legal responsibility for the management of DekaBank custody accounts, in which Deka funds, investment solutions, ETFs and certificates can be held. The S Broker range supplements these services. *S ComfortDepot* offers a solution for savings banks that want S Broker to take legal charge of their retail customer custody accounts. S Broker's *DepotPlus* and *DirektDepot* serve online- or trading-savvy customers with minimal advisory needs. The digital development platform bevestor is another module of the multichannel approach and produces solutions for the online securities business. bevestor GmbH acts as the savings banks' central robo-advisory product for retail customers.

- The Depositary subdivision offers an extensive range of depositary services. These include the regulatory control function under the German Investment Code (*Kapitalanlagesetzbuch* – KAGB), securities settlement and reporting. Depositary acts as a one-stop shop for its customers. If required, it combines depositary services with other offerings from the Deka Group: the master KVG for a comprehensive asset servicing solution and services from the capital markets business such as commission business with securities and exchange-traded derivatives, foreign exchange trading, repo/lending transactions and collateral management. The subdivision offers its services to investment management companies both inside and outside the Deka Group and to asset managers. Depositary functions are additionally offered to institutional end investors. The target markets are Germany and Luxembourg.

Capital Markets business division

The Capital Markets business division is the central product, solution and infrastructure provider while also acting as a service provider and driving forward innovation in the Deka Group's customer-focused capital markets business. As such, the business division provides the link between customers and the capital markets. It offers investment solutions to both retail and institutional customers and helps them to put their asset and risk management decisions into practice.

With its range of services relating to securities repurchase transactions, securities lending and foreign exchange trading, the business division also acts as the central securities and collateral platform for the savings bank association. In addition to its function as a commission agent for all relevant asset classes, it serves as a centre of competence for trading and structuring capital market products as well as for DekaBank's certificate issues. Institutional customers are provided with clearing services and support with the efficient fulfilment of regulatory requirements. Customers benefit from synergy effects and economies of scale.

The business division also designs solutions for sustainable (ESG) investment and trading products in proprietary and customer business and works on developing and brokering a selection of carbon offset projects for customers and savings banks.

The activities of the Capital Markets business division are divided into three subdivisions:

- The Collateral Trading & Currency subdivision brings together all securities lending products, securities repurchase transactions, their derivative equivalents and customer-oriented currency trading.
- The Trading & Structuring subdivision is the Deka Group's centre of competence for trading and structuring capital market products (cash instruments, bonds and shares) and for all types of derivatives that are used in investment funds and in the Depot A securities account of the savings banks or by other customers. The unit also runs the structured issuance business (Deka certificates and partner certificates) and debt capital markets business (third-party issues business), i.e. supporting other companies as they issue financial instruments.
- The Commission Business subdivision executes trades in securities and exchange-traded derivatives in its own name on behalf of third parties. These services can be used by business partners inside and outside the *Sparkassen-Finanzgruppe*.

Deka is constantly enhancing its own platform solutions to support its business activities:

- The main product remains the Deka Easy Access (DEA) information, management and trading platform, which helps savings banks to manage their proprietary portfolios effectively. DEA allows the savings banks to trade popular capital market products and offers broad access to information and research. As of the end of 2022, 302 savings banks used this established tool.
- finledger is a platform jointly developed with other market participants for processing digital promissory notes using distributed ledger technology (DLT).
- SWIAT (Secure Worldwide Interbank Asset Transfer) is a blockchain-based decentralised financial infrastructure. It was developed to combine financial transactions for traditional and digital securities, other assets and digital financial market instruments such as securities lending transactions, repos, purchase/sale, derivatives and smart contracts in a single network. SWIAT opens up the use of blockchain technology to the Deka Group and the *Sparkassen-Finanzgruppe*, creating an infrastructure that savings banks can use for proprietary and customer business.

Financing business division

The Financing business division concentrates on specialised and real estate financing and supports the savings banks with refinancing. Lending is taken onto our own statement of financial position via the banking book, as well as being packaged as an investment product for other savings banks and banks or institutional investors via club deals or syndications. Priority is given to placements within the *Sparkassen-Finanzgruppe*. There is the possibility to participate in loans arranged by third parties.

The Financing business division actively implements the sustainability strategy by specifically providing sustainable financing and contributes to achieving the United Nations Sustainable Development Goals,

Specialised Financing and Real Estate Financing are subdivisions of the Financing business division.

- The Specialised Financing subdivision concentrates on financing energy, grid, utilities and public infrastructure projects (infrastructure and renewable energy financing), on aircraft, ship and rail financing (transport financing), on financing covered by export credit agencies (ECAs), and on financing of the public sector. Savings bank refinancing comprises financing for German savings banks in all maturity ranges and financing for the public sector in Germany in the interests of the *Sparkassen-Finanzgruppe*.
- The Real Estate Financing subdivision provides lending for commercial real estate in the office, logistics, retail and hotel segments. It focuses on marketable properties in markets of relevant size, transparency and liquidity, especially in Europe and North America.

Sales

Sales is responsible for the Deka Group's sales activities across all business divisions and the overall customer relationship with savings banks and other investors. It works across business divisions to generate and maintain business. With regard to the savings banks, the approach to sales and service provision varies depending particularly on the different end customer groups being served. Holistic strategies are used to address each target group, and this is reflected by the organisational division of Sales into three pillars: Savings Banks Sales & Marketing, Private Banking & Wealth Management, and Institutional Customer Sales.

Savings Banks Sales & Marketing
Savings Banks Sales & Marketing focuses on comprehensive sales support for the savings banks for business with retail and business customers in all sales channels.

There is a clear division of tasks in market cultivation: The savings banks have sole responsibility for directly contacting, advising and serving retail and business customers. To provide the savings banks with optimal support, the Deka Group offers systematic, in-depth assistance, provided by dedicated contacts, along with a structured product range of solution-focused, customer-friendly investment concepts. Deka's marketing activities are also aimed directly at end customers to raise their awareness of Deka's offering.

To ensure nationwide support, Sales in Germany is divided into six sales regions. Sales directors maintain regular dialogue on markets and customers with the savings banks and savings banks associations. As a point of contact for the savings banks' management boards and sales managers, they focus on strategic aspects of the securities business and on the investment process. In addition, the savings banks have access to Deka sales managers to support their operations (advisory process). Deka specialists assist at local level with marketing and sales activities and offer training and coaching as the topic or occasion requires. Deka's sales directors and managers engage in continuing professional development.

The well-established modular securities concept is a web-based application that helps the savings banks to efficiently expand their securities business in a way that makes full use of their potential. Savings banks can independently perform planning simulations for multi-year periods, giving them transparency around segment planning and earnings, portfolio and sales structures.

The Deka Group offers the savings banks a web-based sales support and information platform in the form of DekaNet. This acts as a central port of call for up-to-date product, sales and marketing information and also provides advisers with various tools and services for the investment and advisory process. In addition to this, DekaNet serves the savings banks as a centralised front end for data retrieval and data entry for customers and securities transactions in DekaBank custody accounts. The services are being continuously improved as digital technology develops. For example, there are plans to integrate the tools with all their current and future functionality into S-Invest Manager. The new S-Invest Manager platform reconceives the present-day information and transaction platform DekaNet and will expand the current service range, including innovations and improvements throughout the securities process at the savings banks.

Together with the savings banks, Deka aims to be a market leader in terms of its comprehensive coverage of the securities culture in market and brand communications and to draw attention to the work of the *Sparkassen-Finanzgruppe* in this area. Ethical asset structuring, future-proof securities saving and future trends such as digitalisation are also important issues and inspire new ideas for sales activities. The overarching aim is to put the securities expertise of Deka Investments front and centre of marketing efforts.

Products and solutions for retail customers are primarily marketed under the Deka Investments sales brand.

Private Banking & Wealth Management

Reflecting its strategic importance, private banking was restructured in a dedicated Private Banking & Wealth Management sales unit in mid-2022.

Private Banking & Wealth Management will gain additional personnel over the next few years and invest in training and processes. A combination of services and products will further enhance the broad range of support offered by Deka Private Banking and tailored to its target group. This will include more wealth management services in future.

In private banking, too, the savings banks have sole responsibility for directly contacting, advising and serving the end customers. In wealth management, customer acquisition and customer service is shared with the savings banks.

Bespoke solutions for high net worth private clients were provided under the Deka Private Banking sales brand in 2022. In February 2023, the brand name was changed to Deka Private & Wealth.

Institutional Customer Sales

The Institutional Customer Sales unit supports the savings banks with proprietary business and serves institutional investors in Germany and, in a number of cases, abroad. Customer advisers are responsible for the overall relationship with institutional customers and adopt a comprehensive approach that covers all products and services offered by the Deka Group across all business divisions. In addition, Deka provides institutional customers with important functions such as reporting and order placement through online channels. Sustainability, in particular, is an important topic when advising and supporting customers.

In our business with savings banks, the Institutional Customer Sales team is available as a management partner and adviser. It develops immediately viable solutions for proprietary business (*Depot A*) and overall bank management. This includes methods and applications for interest rate book management and asset allocation. The solutions are built on comprehensive analyses of the earnings and risk situation. Support for savings banks and financial institutions is divided into two sales regions. Another team looks after the largest savings banks and financial institutions with special requirements. Employees in the Strategic Proprietary Business & Asset Liability Management team develop methods and applications for interest rate book management and asset allocation for institutional customers – primarily savings banks – and advise them on these topics. There are also dedicated teams for the ETF sales business, the sale of bonds and structured products and direct business with asset managers. These teams work across customer groups.

For the business with institutional investors in Germany, there are three teams, each responsible for a different customer group: insurance companies (investors subject to the German Insurance Supervision Act (*Versicherungsaufsichtsgesetz* – VAG)), public sector/non-profit organisations and corporates. This specialisation enables Institutional Customer Sales to incorporate the Deka Group's expertise into investment solutions in a way that meets the needs of investors in each target group. The Client Analytics & Solutions team develops methods and solutions for customer-specific analysis of ideal investment opportunities, manages relationships with consultants and handles requests for proposal.

The Deka Group brings together all its solution expertise for institutional customers under the Deka Institutionell brand, reinforcing its clear focus on the needs of the institutional target group.

Corporate Centres

The corporate centres perform essential functions, support Sales and the front office units in operational processes and business management, and take on administrative tasks. As at the reporting date, these comprised the Corporate Office & Communications, Internal Audit, Legal, Compliance, Strategy & HR, Organisational Development, Risk Control Capital Market Funds, Risk Control, Finance, IT, Business Services, Credit Risk Management, and Treasury corporate centres.

Influencing factors and market position

In securities-related asset management, the economy, the money market and capital market environment, the sales environment for the *Sparkassen-Finanzgruppe*, customer-driven trends and product quality all influence business development and profit performance. These factors have an impact on the sale of products to retail and institutional investors as well as on the performance of portfolios. In addition to this, real estate asset management is largely influenced by the situation and developments in commercial property, investment and letting markets.

With fund assets (according to the BVI, the German Investment Funds Association, as at 31 December 2022) of €142.3bn and a market share of 12.4%, Deka is the fourth largest provider of mutual securities funds in Germany. It is Germany's second-placed provider of mutual property funds with fund assets (according to the BVI, as at 31 December 2022) of €40.5bn and a market share of 30.9%.

Deka's consistently good performance was confirmed once again in the Capital-Fonds-Kompass 2022 awards organised by the business magazine Capital together with the fund analysis firm Scope Analysis and the service experts at Tetralog Systems. Deka achieved the top score of five stars for the tenth time in a row. This year saw Deka build on its strong ratings from the previous year and improve its overall ranking to fourth place out of 100 companies. Among those providers with at least 31 funds distributed in Germany (universalists), Deka made it into the top three again.

The best fund companies for private investors in five categories – equities, bonds, mixed funds, ESG/sustainability and ETFs – were named German Fund Champions 2023. Deka was crowned Fund Champion from 20 companies in the bond funds (active management) category.

At the Scope Alternative Investment Awards in November 2022, Deka Immobilien Investment GmbH was again honoured as Best Asset Manager in the Retail Real Estate Europe category. Deka Investment GmbH was also crowned Best Asset Manager in the Bond Fund category, repeating the previous year's success.

Developments in the money and capital markets are also highly relevant to the Capital Markets and Financing business divisions. For example, customer demand for liquidity partly depends on the volume of liquidity made available by the ECB. In addition, the situation in the securities markets impacts upon the certificate issuance activities of the Capital Markets business division. Lending business is affected to some extent by economic trends in the sectors financed and by market interest rate developments.

Real estate financing focuses on properties in Europe and selected locations in North America. The specialised financing business has an international orientation and is rounded off by its services for German savings banks. Having worked for decades in every segment, DekaBank has extensive market knowledge and experience at its disposal. In the savings bank sector, DekaBank is in second place in the segment for the financing of German federal states.

The Structured Retail Products (SRP) finance portal presents its SRP awards each year for the European certificates market in various categories. Deka was nominated for the first time and was the winner in three categories: "Best House, Germany & Austria", "Best Distributor Germany" and "Best Distributor Germany & Austria".

In October 2022, the German Certificate Prize was awarded for the first time. Organised by Feingold Research together with Börse Frankfurt, Börse Stuttgart, gettex and n-tv, the prize gives private investors an extensive insight into the range, quality and services offered by the certificates industry. Deka won three awards: best primary market issuer, best express certificates offering and best sales support.

The Deka Group's certificates are sold through the German savings banks. According to statistics from the German Derivatives Association (DDV), Deka has confirmed its very good position as an issuer of structured products in Germany, with a 26.1% market share by market volume at the end of December 2022.

At the Scope Zertifikate Awards 2022, presented in November 2022, DekaBank was recognised as the best certificate issuer in the primary market for the seventh time.

For the sixth time in a row, Deka received the top score of AAA in the Scope Zertifikate Management Ratings. This followed an evaluation process by the rating agency Scope, which looked at Deka's corporate profile, market position, product range, and sales and investor services.

See also: Economic report: page 20 ff.

Changes to regulatory requirements are of key significance for all business divisions, sales units and corporate centres. An overview of current economic conditions is provided in the economic report.

Risk and profit management at the Deka Group

The structure and content of the section on risk and profit management correspond to the relevant section published in the Group management report of the Deka Group. Risk and profit management are oriented towards the Deka Group, while Group management is aligned with the business divisions, thereby incorporating all business divisions and legal entities. Financial and non-financial performance indicators are defined and managed solely at Group level, and not at the level of individual institutions. Therefore, no separate section on risk and profit management has been prepared for DekaBank on an individual basis.

The Deka Group has a consistent system of targets at both Group and business division level. At Group level, success is measured against three outcomes: sustainably increasing enterprise value, generating value added for the *Sparkassen-Finanzgruppe* and growing customer assets under management.

Financial and non-financial performance indicators are used in the Bank's management. These can be divided into key management indicators and other relevant indicators. The Board of Management and management committees that support the Board in its management role are informed through comprehensive reporting whether the strategic and operational measures used to manage the Deka Group are successful and whether the Deka Group risk/reward ratio is within the target range.

Financial performance indicators

The financial performance indicators relate to the Deka Group's earnings position, capital adequacy and liquidity adequacy.

The economic result is the key in-house management indicator within the meaning of the provisions of IFRS 8 (Operating Segments). The return on equity and cost/income ratio are also integral to internal management.

See also: Glossary: page 142 ff.

Return on equity is defined at Group level as the ratio of the economic result to balance sheet equity. It shows the return on capital. For the purposes of operational management at business division level, the return on equity is used as the ratio of the economic result to regulatory capital employed. The cost/income ratio is an indicator of cost efficiency. These two management indicators – return on equity and cost/income ratio – result in a focus on profitability and efficiency and thereby directly support the strategic outcomes.

The economic result, calculated based on the IFRS figures, includes the total of profit or loss before tax, plus or minus changes in the revaluation reserve (before tax) and the interest rate- and currency-related valuation result from financial instruments recognised at amortised cost, which are not recognised in the income statement under IFRS but are relevant for assessing financial performance. Interest expense for the AT1 (Additional Tier 1 Capital) bond, which is recognised directly in equity, is also taken into account in the economic result. Furthermore, the economic result takes into account contingent future charges where the likelihood of occurrence is considered to be "possible" but for which a provision cannot be recorded under IFRS due to the lack of sufficient concrete evidence. The economic result is therefore a control variable on an accrual basis with a high level of transparency that enables recipients of the external financial reporting to consider the company from the management perspective.

The economic result has been used in external reporting at Group and business division level since 2007. A reconciliation of the economic result to profit before tax under IFRS can be found in the segment reporting in note [3] of the Deka Group's consolidated financial statements, which shows the measurement and reporting differences in the "reconciliation" column. This ensures that it is possible to reconcile the figures presented with profit before tax under IFRS.

See also: Capital adequacy: page 69 ff.

The Internal Capital Adequacy Assessment Process (ICAAP) is based on two perspectives. In the normative perspective, the Common Equity Tier 1 capital ratio is the key management indicator. The Common Equity Tier 1 capital ratio is defined as the ratio of Common Equity Tier 1 capital to risk-weighted assets (RWAs) for all relevant credit, market and operational risk positions plus the credit valuation adjustment (CVA) risk. Other relevant indicators comprise own funds, Tier 1 capital, RWAs and the leverage ratio exposure, along with the corresponding capital ratios, the (RWA- and LRE-based) MREL ratios, the (RWA- and LRE-based) subordinated MREL requirements and utilisation of the large exposure limit. Risk-weighted assets are managed in line with the Deka Group's strategy, the targeted balance sheet structure and the capital market environment. In the economic perspective, risk appetite and its utilisation is the key management indicator. Risk appetite is defined as the overall aggregate risk for individual risk types that the Deka Group is willing to accept in order to achieve its strategic objectives and business plan. It forms the basis for allocating risk capital. The monthly risk-bearing capacity analysis involves comparing the Deka Group's risk appetite and allocated risk capital with total risk determined across all risk types that have an impact on profit or loss and calculating the level of utilisation. This makes it possible to establish whether risk limits have been adhered to at Group and divisional level.

See also: Liquidity adequacy: page 73 ff.

The Internal Liquidity Adequacy Assessment Process (ILAAP) is also based on two perspectives. From the normative perspective, the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) serve as the relevant indicators. The funding matrix (FM) has been defined by the Board of Management as the risk measure to be used as an indicator in the quantification, management and monitoring of liquidity risk in the economic perspective.

Non-financial performance indicators

Non-financial performance indicators relate to various aspects of the Bank's operations and are an indication of the success of the products and services of the business divisions in the market.

Net sales is the key management indicator of sales performance in the fund and certificates business. This figure essentially consists of the total direct sales volume of mutual and special funds, fund-based asset management, funds of partner organisations, master funds and advisory/management mandates, ETFs and certificates. Net sales in investment fund business corresponds to gross sales less redemptions and maturities. Sales generated through proprietary investment activities are not counted. Redemptions and maturities are not taken into account for certificates, since in the certificates business the impact on earnings primarily occurs at the time of issue.

The key management indicator total customer assets comprises the income-relevant volume of mutual and special fund products (including ETFs), direct investments in the funds of partner organisations, the portion of fund-based asset management activities attributable to cooperation partners, third-party funds and liquidity, advisory/management mandates, master funds and Deka certificates. Total customer assets have a significant impact on the level of net commission income.

The performance indicators are reported by customer segment and product category at Deka Group level and for the Asset Management Securities and Asset Management Real Estate business divisions. For the Capital Markets business division, they are reported by customer segment.

Economic report

Economic environment

Macroeconomic conditions

Russia's invasion of Ukraine in late February 2022 fundamentally changed the business environment. Consumer uncertainty grew and significant inflationary processes took off, pushing central banks around the world into a cycle of interest rate hikes. The policy of zero or negative interest rates came to a remarkably decisive end. The central banks reversed their expansionary monetary policy so rapidly and thoroughly that the impact on global economic development was impossible to ignore.

Despite all this, global gross domestic product (GDP) grew by 3.1% in 2022. The expansion was driven by further catch-up effects following two years of noticeable COVID-19 restrictions. Particularly in western industrialised nations, unlike in China, the service sector reaped the benefits, for example in tourism and hospitality. Strong labour markets with falling unemployment rates, rising wages and job growth generally boosted economic activity.

Various different factors in the major economies played a role. In the United States, the first significant central bank interest rate hike came in early March 2022, which aimed to dampen domestic demand-driven inflation. This curbed demand significantly, particularly in the housebuilding sector. In China, the extensive lockdowns in the second quarter slowed growth. The Chinese government kept its zero-COVID strategy in place until December. Combined with the more infectious Omicron variant, this resulted among other things in a shutdown of the major port in Shanghai, which lasted several weeks. Problems in the real estate sector were another reason why, at 2.9%, China's GDP growth fell short of the country's own target by an unexpectedly significant margin.

The ramifications of the Russian war of aggression were strongest in Europe. The outbreak of war in Ukraine was immediately followed by rising energy prices. This directly reduced the purchasing power of private households, causing a fall in consumer spending. The heavy reliance on Russian oil and gas supplies had negative implications primarily for the German economy. The diverse, repeatedly tightened sanctions on Russia led to spreading fears about energy availability. The need for savings, particularly in gas and electricity consumption, was felt by both private households and businesses, whose activity was constrained by supply-side factors. War-related uncertainty included the risk of a gas shortage, primarily in Germany. Against this backdrop, sentiment indicators in Germany, as in many European countries, fell to extremely low levels. This meant that global economic activity was weak overall at the end of 2022.

The fact that a severe economic slump was averted in the reporting year was partly due to the fiscal support provided by governments. Most countries spent considerable sums on easing the burden of rising energy prices, particularly for private households. There was also noticeably higher wage growth than in previous years, which helped to prop up aggregate demand.

Sector-related conditions

After the initially deflationary impact of the coronavirus pandemic, upward pressure on prices was already growing as 2021 progressed. This was mainly the result of macroeconomic imbalances, which caused aggregate demand to recover very quickly while shortages persisted on the supply side and disrupted logistics. Sharp price rises, for both commodities and important intermediate products, continued into 2022. With Russia's attack on Ukraine, inflation rose further. Prices for energy commodities increased considerably. Given their dependence on Russian gas and oil, the eurozone and particularly Germany were more heavily affected than other regions. Consumers also faced an exceptionally sharp rise in food prices. This was partly because the war left Ukraine unable to export as much agricultural produce as in previous years, and partly because of the energy-intensive nature of food production. Starting from the middle of the year, there were mounting signs of a gradual easing of global supply chain problems. The rise in commodity prices partly reversed and producer price inflation levelled off. Despite this, strong upward pressure on consumer prices continued towards the end of the year as higher costs were passed on to consumers.

While these global factors drove higher inflation to a greater or lesser extent in all regions of the world, there were significant differences in terms of cyclical inflation. In the context of a stronger economic recovery, wages and consumer prices (excluding food and energy) in the United States increased more strongly than in the eurozone. Nevertheless, the exceptionally high inflation rates and historically low unemployment levels left the ECB Governing Council members fearing that a wage-price spiral could take off in future.

The pace at which inflation accelerated and the diverse causes behind it presented the central banks with major challenges. Their forecasts about the extent and duration of the inflationary surge were repeatedly revised upwards. The central banks therefore gradually accelerated their monetary policy adjustments. The US Federal Reserve (Fed), for example, began with a key rate rise of 25 basis points in March, which it followed with a series of rate hikes of up to 75 basis points. In line with its monetary policy strategy, the ECB initially left key interest rates unchanged and concentrated on terminating its asset purchase programmes. It had already announced back in December 2021 that it would end its net bond purchases under the Pandemic Emergency Purchase Programme (PEPP) in March. The remaining purchases under the Asset Purchase Programme (APP) were modest in scale but sent an important signal that the ECB was explicitly ruling out key interest rate hikes for as long as net bond purchases continued. The termination of the APP in mid-2022 thus marked an important turning point, after which the ECB began a series of large hikes in its key rates. In December, both the Fed and the ECB slowed the pace of monetary policy tightening somewhat, putting their key rates up by 50 basis points. Nevertheless, their communications left no doubt that they still see the need for further adjustments given the upward inflationary risks. The differences in the timing of the central banks' monetary tightening caused significant movement in the euro/US dollar exchange rate. The more aggressive moves by the Fed caused the euro to further depreciate against the US dollar. At one point in September, the euro hit a 20-year low of $0.96. It recovered to $1.07 by year-end amid the prospect of declining interest rate differentials between the two major currency areas.

After lifting the deposit rate significantly into positive territory, the ECB changed its approach to asset purchases and longer-term refinancing operations. With effect from November, it recalibrated the conditions of its long-term tenders (TLTRO III), as banks that had made considerable use of these funds would have otherwise been largely shielded from the monetary policy tightening. In December, it also announced that it would begin to reduce its holdings of securities under the APP in March 2023 by not reinvesting all the principal from maturing bonds.

Similarly to the central banks, money market participants also had to gradually correct their inflation predictions upwards. This inflation and the gradual monetary policy response meant that the market expectations contained in money market futures were repeatedly revised almost throughout the year to accommodate higher future key rates. Meanwhile, shorter-term money market rates in the eurozone were closely aligned with key rates of interest. Early repayments of the now less attractive long-term tenders (TLTRO III) resulted in a decline in surplus reserves later in the year. Surplus reserves were, however, still high enough to exert considerable downward pressure on money market rates. For example, the €STR overnight rate traded below the ECB deposit rate by a relatively consistent margin, while the somewhat longer-term EURIBOR rates largely followed €STR swaps with matching maturities. A temporary widening of money market spreads due to fear of economic downside risks and an overly abrupt monetary policy tightening reversed in the second half of the year.

Capital markets had to come to terms with a paradigm shift in 2022. Initially thought to be temporary and driven by one-off effects, the inflationary trend proved increasingly persistent and exorbitant. Russia’s invasion of Ukraine further accelerated this process. As the central banks also recognised the scale of the problem and began a series of increasingly sharp interest rate hikes, yields spiked. Inverted yield curves, first in the United States and later also in Europe, confirmed market fears of an impending recession. By also announcing that they would begin reducing their vast holdings of securities, the central banks reinforced the movement of capital out of riskier assets. This led to a sharp rise in spreads on sovereign bonds from the eurozone periphery and on corporate bonds. While concentration on particularly high-margin products often allowed revenue and profit growth at many companies to surprise on the upside even into the fourth quarter, the looming recession increasingly worsened business prospects. This shifted the view of the major rating agencies, and downgrades began to outnumber upgrades in the rating outlook. Starting in the autumn, however, amid signs that the gas supply situation was stabilising and that rationing in the winter would likely be avoided, sentiment began to improve again.

Despite this, the major central banks – Fed, ECB and Bank of Japan – yet again issued surprisingly hawkish outlooks shortly before the end of the year. But although this triggered another sharp rise in sovereign bond yields, taking them to new heights at the end of 2022, spreads for riskier assets soon stabilised.

The global stock markets came under strong downward pressure from heavy inflation rates, a multitude of supply and production difficulties, and in particular the large-scale withdrawal of monetary policy support. Stock market valuations fell noticeably due to significantly higher interest rates – the discount rate for equities. Extensive lockdown measures in China were an additional factor constraining global trade flows. Russia’s war of aggression and the associated risks to energy supplies also had an impact particularly in Europe. The Euro Stoxx 50, S&P 500 and MSCI World Developed Markets saw major losses of more than 20% over the course of 2022. The NASDAQ-100, which largely comprises technology stocks, even lost more than 30%. A countermovement began in most leading share indices starting in the autumn. In the United States, there were signs that inflation had peaked and that the Fed would at least slow its rate hikes. In Europe, investors were reassured particularly by the successful filling of gas storage facilities and the prospect that the looming recession would likely be milder than initially feared.

Real estate funds continued to offer an advantageous risk/reward ratio. On the real estate markets, the turnaround in interest rates was reflected in a significant rise in financing costs, significantly lower activity in the investment market and a general rise in initial yields. The sharp rate rises curbed the business activities of investors that bring in a large proportion of the debt capital for property acquisitions. Such conditions give competitive advantages to investors who purchase property with a large proportion of equity capital and have a high level of market expertise. Even here, however, purchase decisions are taking longer, with buyers and sellers adopting a cautious approach in price negotiations. In the markets for office space, the rise in vacancies slowed further. Rental growth accelerated strongly due to inflation linking. The high inflation cut consumers' purchasing power. This adversely affected the retail sector, which is experiencing ongoing structural change. The hotel sector is seeing a trend towards significant recovery due to the increase particularly in non-business travel. The logistics market continued to benefit from online shopping and the increased demand for space, which was needed to safeguard supply chains. The global transaction volume in 2022 was noticeably down on the previous year.

The financial assets of private households saw a slight fall of around €149bn versus year-end 2021 to €7,475.5bn (30 September 2022), with valuation losses on securities outpacing new inflows. The end of custodial fees at numerous banks resulted in slightly higher inflows for demand deposits and cash. Compared against year-end 2021, the share of equities and investment funds in the total financial assets of private households declined by around two percentage points to approximately 17% due to the noticeable valuation losses.

The market performance seen in 2022 was also reflected in the investment statistics of the German Investment Funds Association BVI. Net assets in open-ended mutual funds amounted to €1,280.3bn as at 31 December 2022 (year-end 2021: €1,471.4bn), while the net assets of open-ended special funds stood at €1,943.1bn (year-end 2021: €2,187.6bn). As of 31 December 2022, net inflows for open-ended mutual funds were in negative territory at €–4.2bn and thus significantly below the comparative figure for the previous year (€118.5bn). Bond funds in particular saw a high level of redemptions and maturities. At €62.2bn, the sales figure for open-ended special funds for institutional investors was significantly below the comparative figure for the previous year (€131.4bn).

Regulatory environment

Changes to regulations, both those already initiated and those in the pipeline, influenced the business model and profitability of the Deka Group during the 2022 financial year as in the preceding year. Higher capital requirements for banks could emerge from supervisory interpretations of existing legal standards and from the results of the annual Supervisory Review and Evaluation Process (SREP), for example in the context of the supervisory review of the internal models under Pillar 1 of the Basel capital framework.

Implementing the regulations described makes major demands on costs and resources. These are the key regulatory issues for the Deka Group.

Regulatory topics

In response to the COVID-19 pandemic, supervisory authorities and regulators enacted the following relief measures, among others. However, DekaBank continued not to apply them in the reporting year.

- In 2020, the ECB permitted the institutions under its supervision to temporarily operate below the capital level defined by the capital conservation buffer, the Pillar 2 Guidance (P2G) and the liquidity coverage ratio (LCR). DekaBank has not adjusted its relevant internal thresholds for capital and liquidity management. The relief measures relating to the capital conservation buffer and P2G expired at the end of 2022 and the measures relating to the LCR at the end of 2021.

- The Capital Requirements Regulation (CRR) has been amended in European law (CRR quick fix). This allows banks to temporarily adjust their regulatory capital for the effects of increased risk provisioning. Other relief measures relate to the measurement of unrealised losses on banks' holdings of public debt and to the capital deduction for capitalised software. Even if applied, these measures would still not offer significant relief for DekaBank.
- The ECB announced in June 2021 that central bank deposits could be excluded from the leverage ratio exposure. The relief applied for a limited period until 31 March 2022.

As part of the reform of CRR II, the rules on applying credit risk mitigation techniques in the large exposure regime were also revised. Among other things, collateral recognised in the solvency regime must also be recognised in the large exposure regime when using credit risk mitigation techniques. The collateralised exposure is counted towards the large exposure limits for the collateral provider or issuer of the financial collateral (collateral substitution). More detail on the scope of collateral substitution was published in an EBA Q&A on 21 January 2022. This indicates that collateral substitution must continue to be implemented with master netting agreements, including for repo/lending transactions. Implementation was completed by 31 December 2022.

After exiting the European Union (EU), the United Kingdom is continuing to apply the CRR until the initial application date of Basel III (also known as Basel IV) on 1 January 2025. The United Kingdom thus continues to have an equivalent supervisory regime to the EU with respect to CRR application. UK institutions are therefore still considered to be institutions as defined by the CRR for the purposes of calculating risk-weighted assets (RWAs).

In October 2021, the European Commission published its draft CRR III to implement the finalised Basel III rules (also known as Basel IV) in the EU. More specifically, the gradual introduction of an output floor is planned. This will stand at 50% upon introduction at the beginning of 2025 and increase to its final level of 72.5% in 2030. The output floor will limit the benefit of internal models as compared to the standardised approach. DekaBank currently uses an internal model (IRB approach) to measure credit risk for the majority of its lending. It will therefore be particularly affected by the new output floor rules, which may lead to a significant rise in RWAs going forward. In addition, the draft CRR III contains new rules on calculating RWAs for credit valuation adjustment risk (CVA risk) and operational risk, which may also considerably increase RWAs. Initial application of the new rules is planned at EU level for the beginning of 2025.

The Fundamental Review of the Trading Book (FRTB) contains amended provisions on the calculation of market risk. At EU level, the reporting obligation for the FRTB standardised approach has already been in place since 30 September 2021, creating a relatively long parallel run with the current partial use. By 28 June 2023, the rules on internal risk transfers and reclassifications between the trading and banking book, which were already part of CRR II, must be implemented. The new regulations on the definition of the trading book, which were first contained in the draft CRR III, will apply from 1 January 2025. The new market risk capital requirements at EU level are expected to begin at the same time.

A further stress test by the European Banking Authority (EBA) is planned for 2023, which, as in 2021, will cover all risk types. The results are scheduled for publication in July 2023. DekaBank is not among the banks taking part in the EBA stress test. As a bank subject to ECB supervision, however, it will be subjected to a stress test by the ECB in 2023 which will be carried out in accordance with EBA methodology. The results of the ECB stress test feed into the calculation of the Supervisory Review and Evaluation Process (SREP) ratios.

Sustainability-related regulatory proposals

Adopted in 2018, the EU Action Plan on Financing Sustainable Growth aims to reorient capital flows towards sustainable investment, manage financial risks stemming from climate change and foster transparency regarding the consideration of ESG aspects in financial and economic activity. The expectations associated with this EU Action Plan are constantly being addressed through various legal standards for the financial sector. The key standards are described below.

See also:
2022 sustainability report;
CRR disclosure report as of 31 Dec 2022

Various regulatory initiatives in the context of sustainable reporting were relevant to DekaBank in 2022. These concerned the renewed disclosure of seven key performance indicators relating to the taxonomy eligibility of new and existing business (in accordance with Article 8 of the EU Taxonomy Regulation) in the sustainability report. Linked to this are preparations for the taxonomy conformity review, which is geared towards the publication of additional quantitative and qualitative ESG information, including the Green Asset Ratio, in the sustainability report and CRR disclosure report, starting from the 2023 reporting year. Starting with the 2022 reporting year, DekaBank will also publish detailed quantitative and qualitative ESG information on the Bank's lending business in the disclosure report for the first time in accordance with the requirements of Article 449a CRR II. Not least, further elements of the Task Force on Climate-related Financial Disclosures (TCFD) recommendations will be published within the sustainability report. In addition to this, DekaBank is preparing to comply with the provisions of the Corporate Sustainability Reporting Directive (CSRD) in future reporting years. Institutions covered by the Non-Financial Reporting Directive (NFRD), which include DekaBank, must adhere to these starting from the 2024 reporting year.

In the first half of 2022, DekaBank together with another 103 European banks participated in the 2022 ECB climate stress test. A total of 41 banks underwent the complete stress test. DekaBank was not part of this group. The ECB climate stress test sought to evaluate how well prepared SSM (Single Supervisory Mechanism) banks were to deal with the financial and economic shocks arising from climate risks. The aggregated results of the stress test were published in July 2022. Overall, the ECB recognised the progress achieved by banks on integrating climate risk into their stress-testing frameworks and internal models. However, it concluded that further efforts to improve the management of climate risks were necessary. The results for individual institutions were not published; however, these feed into the SREP process for the relevant banks.

In light of the ECB Guide on climate-related and environmental risks, the implementation status first disclosed to the supervisory authority in 2021, including the measures planned, was updated as required. This formed the basis for intensive dialogue with the supervisory authority in the reporting year as part of a thematic review. Constructive suggestions from the concluding ECB feedback letter and the findings of the "Good practices for climate-related and environmental risk management" report published by the ECB will be taken into account in the further management of climate and environmental risks at DekaBank.

Of relevance from investors' perspective is the Sustainable Finance Disclosure Regulation (SFDR). This comprises a range of sustainability-related disclosure obligations at product and entity level with the aim of improving transparency and comparability for investors regarding the sustainability of their investments. To take account of ESG criteria and sustainable investment objectives, additional, taxonomy-related information on the investment policy was added to the pre-contractual information for products with sustainability characteristics in the reporting year. Using standardised templates, preparations were made to implement the detailed disclosure of sustainability characteristics under Level 2, starting from January 2023. Starting from 2022, regular reports on the financial products included, for the first time, information on how the environmental and social characteristics or sustainable investment objectives are being met, in accordance with the Level 1 disclosure requirements. Here, too, implementation was prepared for the more detailed Level 2 disclosures using standardised templates, for reports from January 2023 onwards. Additional preparations were also made in 2022 for managing and preparing the quantitative PAI (principal adverse sustainability impacts) statements at entity level, which must be published by June 2023, and for managing and measuring sustainable investments in the portfolios.

Product- and service-related regulatory proposals

The EU directive on deposit guarantee schemes (Deposit Guarantee Schemes Directive) was implemented in Germany as part of the European banking union in 2015. Under the more wide-ranging ideas put forward by the European Commission, national deposit guarantee systems would create a reinsurance system via a single European Deposit Insurance Scheme (EDIS) and centralise deposit insurance at European level in future. The design of this scheme, the role of institutional guarantee systems and the timetable have not yet been determined.

Business development and profit performance in the Deka Group

Overall statement on the business trend and the Group's position

The Deka Group is looking back on a challenging year for the economy and the wider public. The war in Ukraine caused energy prices to rocket and inflation to hit historic highs, all while the consequences of the pandemic remained clearly noticeable. In the eurozone, prices surged significantly over the year, including the strongest price rises in Germany since the modern Federal Republic was founded. The European Central Bank threw all its might against the rising inflation and implemented multiple interest rate hikes with the aim of easing the situation somewhat. The rate hikes triggered very significant rises in yields in the space of just a few months.

For Deka, supporting the savings banks and institutional customers remained the focus despite this changed environment. The expert advice offered by the savings banks again helped customers to keep investing in 2022.

See also: Segment reporting in the Deka Group's consolidated financial statements

Given the favourable development in operating activities and positive valuation effects due to changed market parameters, the Deka Group achieved an economic result of €984.8m. This was significantly higher than the previous year's €847.8m. Excluding the positive net income from own issues and other own credit quality effects in Treasury due to spread developments and actuarial gains on pension provisions (caused by a change in the actuarial interest rate), the economic result came to €741m.

We are satisfied with our business development and profit performance. Our financial strength is allowing us to make targeted investments in key areas for the future, such as digitalisation, turning the Deka Group into an even more customer-focused, innovative and sustainable *Wertpapierhaus*. The result will also ensure that DekaBank is able to distribute profits and also to retain part of these profits to strengthen its Common Equity Tier 1 capital.

Income rose by 10.7% year-on-year to €2,236.3m (2021: €2,019.5m). Net commission income remained the main component of the Deka Group's income, accounting for €1,591.8m. At €1,251.5m, expenses were 6.8% higher than in the previous year (€1,171.8m) due to moderate increases in personnel and other administrative expenses including depreciation and amortisation.

The Deka Group's total net sales in the 2022 reporting period were well into positive territory at €27.4bn (2021. €35.7bn). At €20.8bn, net sales in the retail customer segment in 2022 fell €4.3bn short of the prior-year figure (€25.0bn). Retail fund sales were down year-on-year at €8.1bn (previous year: €17.9bn). Equity fund sales in the reporting period came to €6.0bn, real estate fund sales to €1.9bn and mixed fund sales to €1.0bn. Bond funds saw outflows of €2.1bn. Sales of certificates to retail customers increased to €12.6bn (2021: €7.1bn) in 2022, of which €8.7bn was attributable to Deka certificates and €4.0bn to partner certificates. Net sales to institutional customers came to €6.6bn in 2022 as against €10.7bn in the previous year. The institutional investment fund business accounted for net sales of €5.9bn, compared with €8.8bn in 2021. While sales in master funds were well into positive territory, there were outflows of funds in the case of advisory/management mandates, partly due to a customer ending their mandate. Certificate sales to institutional customers came to €0.7bn (2021: €1.9bn).

Deka Group net sales *in €m (Fig. 4)*

	2022	2021
Net sales	**27,381**	**35,735**
by customer segment		
Retail customers	20,754	25,032
Institutional customers	6,627	10,703
by product category		
Mutual funds and fund-based asset management	7,065	18,721
Special funds and mandates	6,174	6,736
Certificates	13,320	9,002
ETFs	822	1,277

Investors signed up to around 368,000 (net figure) new Deka investment savings plans in 2022 (year-end 2021: approximately 1,238,000), meaning that the Deka Group managed a total of approximately 7.4 million contracts at the end of 2022, compared with around 7.0 million at the end of the previous year.

The appeal of securities was also reflected in the number of DekaBank securities accounts, which came to 5.3 million (year-end 2021: 5.1 million). There was a significant positive trend in the number of transactions, which rose by around 21% as against year-end 2021 to 120.0 million.

The positive overall net sales performance only partially offset the market-induced negative trend in total customer assets. Total customer assets declined by €23.4bn year-on-year to €371.8bn (year-end 2021: €395.1bn). This included distributions (from which customers benefited) and certificate redemptions of together €8.8bn.

Deka Group total customer assets *in €m (Fig. 5)*

	31 Dec 2022	31 Dec 2021	Change	
Total customer assets	**371,753**	**395,148**	–23,395	–5.9%
by customer segment				
Retail customers	188,490	196,485	–7,995	–4.1%
Institutional customers	183,263	198,662	–15,399	–7.8%
by product category				
Mutual funds and fund-based asset management	181,863	195,877	–14,014	–7.2%
Special funds and mandates	154,009	161,553	–7,544	–4.7%
Certificates	24,506	24,498	8	0.0%
ETFs	11,375	13,220	–1,845	–14.0%

See also: Capital adequacy: page 69 ff.

The Common Equity Tier 1 capital ratio at the close of 2022 stood at 17.4% (year-end 2021: 15.2%). Both Common Equity Tier 1 capital and RWAs increased over the course of the year. In accordance with Article 26 (2) CRR, the 2022 year-end profit less foreseeable charges and dividends was recognised for the first time in Common Equity Tier 1 capital as at 31 December 2022 (dynamic approach). The regulatory requirement was exceeded at all times.

Compared with the previous year, Common Equity Tier 1 capital increased by €746m to €5,462m. The increase was a result of the inclusion of year-end effects from 2021 and 2022 (mainly profit retention).

RWAs increased overall by €415 m from the year-end 2021 figure of €30,944m to €31,360m. Compared with the end of 2021, credit risk dropped by €506m to €20,993m. This was caused by a decline in RWAs from lending business due to improvements in creditworthiness. Lower RWAs also resulted from the smaller shortfall in cover for guarantee products, mainly due to the higher (discounting) yield curve. At €5,645m, market risk was almost unchanged from the previous year (€5,588m). There was a drop in general market risks (internal model), while specific market risks (standardised approach) were almost unchanged. RWAs from operational risk amounted to €4,139m (2021: €3,500m). The increase was mainly due to a remodelling of loss scenarios (ex-ante perspective). CVA risk increased by €225m to €583m due to the higher volumes of derivative transactions to be included.

At 7.1%, the leverage ratio exceeded the previous year's figure of 6.2%. The increase was due to higher Tier 1 capital combined with a significantly smaller increase by comparison in leverage ratio exposure. The minimum leverage ratio of 3.0% was thus adhered to at all times.

The MREL requirements are calculated using an RWA- and LRE-based method in accordance with supervisory requirements. As at the reporting date, the MREL ratio in line with the RWA-based approach amounted to 52.0% (year-end 2021: 59.7%), while the figure under the LRE-based approach came to 19.1% (year-end 2021: 21.7%). Both ratios were significantly above the minimum ratios applicable since 1 January 2022.

The subordinated MREL requirements are also calculated using an RWA- and LRE-based method in accordance with supervisory requirements. As at 31 December 2022, the subordinated MREL requirements in line with the RWA-based approach came to 35.9% (year-end 2021: 42.4%), while the figure under the LRE-based approach was 14.2% (year-end 2021: 16.4%). Both ratios were significantly above the minimum ratios applicable since 1 January 2022.

See also: Liquidity adequacy: page 73 ff.

The Deka Group had ample liquidity, measured using the liquidity balances and liquidity coverage ratio (LCR), throughout 2022. Compared with the end of 2021 (160.3%), the LCR declined by 1.1 percentage points to 159.1%. In percentage terms, the decline in holdings of high-quality liquid assets was slightly stronger than the decline in net cash outflows. The LCR in the reporting period was always significantly above the applicable minimum limit of 100%.

The net stable funding ratio (NSFR) was almost unchanged and stood at 118.1% at the end of 2022 (year-end 2021: 118.9%), putting it significantly above the minimum of 100%.

Economic risk-bearing capacity was at a non-critical level overall as at the end of 2022. The utilisation of risk appetite (59.9%) was up significantly on the end of the previous year (43.3%) due to higher total risk. This was chiefly attributable to significantly increased counterparty, market price, business and operational risks. At 47.6%, utilisation of risk capacity was also significantly above the level seen at the end of 2021 (32.6%).

Comparison of forecast and actual growth

Expectations regarding the Deka Group's key performance indicators in 2022, as set out in the forecast report of the 2021 Group management report and updated in the 2022 interim financial report, materialised as predicted.

Development of key performance indicators in the Deka Group *(Fig. 6)*

		31 Dec 2021	Forecast 2022 in the Annual Report 2021	Forecast 2022 in the Interim Report 2022	31 Dec 2022	Change	
Economic result	€m	847.8	Around 550	Slightly above the result for the first half of 2022	984.8	137.0	16.2%
Total customer assets	€bn	395.1	Moderately above the previous year	Moderately below the previous year	371.8	−23.4	−5.9%
Net sales	€bn	35.7	Around 30	Slightly below 30	27.4	−8.4	−23.4%
Common Equity Tier 1 capital ratio	%	15.2	Above 13	Above 13	17.4	2.2%-points	
Utilisation of risk appetite	%	43.3	At a non-critical level	At a non-critical level	59.9	16.6%-points	

Profit performance of DekaBank

The total of net income from interest and equity investments increased to €1,028m (previous year: €752m). This change was due to net income from equity investments, which grew by €351m to €955m. The significant rise in net income from equity investments was attributable to a higher distribution made by Deka Verwaltungsgesellschaft S.A., Luxembourg. Net commission income grew slightly to €347m (previous year: €339m). Trading profit of €558m was noticeably higher than in the previous year (€226m). This was due to the positive net income from own issues. Other operating profit came to €227m (previous year: €361m). It was negatively affected by actuarial losses on pension provisions. These resulted mainly from the decline in plan assets.

At €999m, general administrative expenses as the total of personnel expenses and other administrative expenses including depreciation and amortisation were on a level with the prior-year figure (€997m) in the year under review. Personnel expenses of €420m were below the previous year's figure (€456m), primarily due to the significantly reduced allocations to provisions for pensions. At €579m, other administrative expenses including depreciation and amortisation slightly exceeded the prior-year figure (€541m). This increase resulted chiefly from higher consultancy expenses.

The overall valuation result from the lending, securities and investment business for the past financial year was €–167m (previous year: €–42m). This change was attributable particularly to the higher interest rate level and the associated negative valuation results on securities in the liquidity reserve. There were also higher risk provisions as a result of the application of post-model adjustments due to energy prices, inflation for the corporates and commercial real estate modules, and rating downgrades. After allocations of €506m (previous year: €161m) to the fund for general banking risks and deduction of income taxes of €290m (previous year: €279m), DekaBank achieved an operating result after tax of €200m (previous year: €200m).

DekaBank performance *in €m (Fig. 7)*

	2022	2021	Change	
Net interest income and net income from equity investments	1,028	752	276	36.7%
Net commission income	347	339	8	2.5%
Trading result	558	226	332	147.2%
General administrative expenses	999	997	2	0.2%
Risk provision/valuation	–167	–42	–125	–297.3%
Income taxes	290	279	11	4.0%
Net income after tax	**200**	**200**	0	0.0%

Business development by business division

Business development in the Asset Management Securities business division

The economic result for the Asset Management Securities business division was €550.3m (previous year: €606.3m). The political and economic situation, the inflationary trend and the resulting effects on the securities markets created a challenging environment for the business division. As expected in the current market environment, net sales of €11.5bn remained below the high prior-year figure of €23.0bn. Market conditions meant that total customer assets of €293.5bn were short of the previous year's €320.4bn.

Net sales and total customer assets

The business division's net sales totalled €11.5bn (previous year: €23.0bn). Business with retail customers performed less well than in the previous year due to the difficult market environment. Sales of mutual securities funds reached €5.3bn (previous year: €16.5bn). Sales of equity and mixed funds were particularly positive again. Bond funds recorded negative net sales, putting them significantly below the previous year's figures. In fund-based asset management, there were only slight net redemptions and maturities of €0.1bn, compared with the higher levels (€–0.6bn) seen in the previous year. Business with institutional customers amounted to €5.3bn (previous year: €7.6bn). Net sales of special funds and mandates stood at €5.5bn (previous year: €5.8bn). There was a particular decline in sales of advisory/management mandates, and special funds were also unable to match the previous year's figures. However, inflows into master funds virtually compensated for this. Demand for ETFs came to €0.8bn (previous year: €1.3bn).

Net sales performance in the Asset Management Securities business division *in €m (Fig. 8)*

	2022	2021
Net sales	**11,503**	**23,032**
by customer segment		
Retail customers	6,234	15,440
Institutional customers	5,269	7,593
by product category		
Mutual funds and fund-based asset management	5,210	15,919
ETFs	822	1,277
Special funds and mandates	5,471	5,837

Despite a positive sales performance, total customer assets came to €293.5bn (previous year: €320.4bn) due to market-induced negative investment performance.

Total customer assets in the Asset Management Securities business division *in €m (Fig. 9)*

	31 Dec 2022	31 Dec 2021	Change	
Total customer assets	**293,533**	**320,419**	–26,885	–8.4%
by customer segment				
Retail customers	131,111	143,952	–12,841	–8.9%
Institutional customers	162,423	176,467	–14,044	–8.0%
by product category				
Mutual funds and fund-based asset management	140,086	156,369	–16,284	–10.4%
thereof: equity funds	55,585	59,409	–3,824	–6.4%
thereof: bond funds	22,510	29,072	–6,562	–22.6%
thereof: mixed funds	22,642	24,726	–2,084	–8.4%
ETFs	11,375	13,220	–1,845	–14.0%
Special funds and mandates	142,072	150,830	–8,757	–5.8%

Business development in the Asset Management Real Estate business division

At €166.0m, the economic result in the Asset Management Real Estate business division remained below the previous year's figure of €188.6m. Net sales of €2.6bn did not match the previous year's high figure. Thanks in part to the solid investment performance, the business division's total customer assets climbed to €53.7bn. Real estate assets under management grew by €2.9bn to €50.1bn.

Net sales and total customer assets

As a result of the war between Russia and Ukraine, the strong rise in inflation and the associated turnaround in interest rates, retail and institutional customers alike showed significant investment restraint. The business division's net sales therefore declined to €2.6bn (previous year: €3.7bn). The tried-and-tested quota system for sales to retail customers was nevertheless maintained, allowing the inflow of funds into the products to be managed effectively, even amid high demand, and the funds' liquidity resources to be limited. This also helps to prevent excessive investment pressure. The sales quotas that had been set were largely though not completely met by the end of the year.

Mutual funds accounted for around 73% of the business division's net sales. WestInvest InterSelect, which focuses on Europe, and the Deka-ImmobilienMetropolen fund, distributed since 2020, continued to register particularly high demand.

At €0.7bn, net sales in open-ended mutual property funds for institutional customers, special funds, individual property funds, credit funds and mandates were significantly below the previous year's figure of €1.2bn due to customers' investment restraint. Special funds accounted for a particularly significant proportion of sales.

Net sales performance in the Asset Management Real Estate business division *in €m (Fig. 10)*

	2022	2021
Net sales	**2,559**	**3,701**
by customer segment		
Retail customers	1,906	2,506
Institutional customers	653	1,195
by product category		
Mutual property funds	1,856	2,802
Special funds, individual property funds and mandates	703	899

Total customer assets in the Asset Management Real Estate business division increased by 6.9% in the reporting year, despite distributions of €1.0bn, to reach €53.7bn. Of the total customer assets, mutual property funds accounted for €41.8bn, of which approximately 90% was from products for retail customers. Euro-denominated mutual property funds achieved an average volume-weighted return of 2.8% (previous year: 2.1%).

Total customer assets in the Asset Management Real Estate business division *in €m (Fig. 11)*

	31 Dec 2022	31 Dec 2021	Change	
Total customer assets	**53,714**	**50,231**	3,482	6.9%
by customer segment				
Retail customers	38,267	35,986	2,281	6.3%
Institutional customers	15,447	14,246	1,201	8.4%
by product category				
Mutual property funds	41,777	39,507	2,270	5.7%
Special funds, individual property funds and mandates	11,937	10,724	1,213	11.3%

Pricing on national and international real estate markets currently remains fraught with uncertainty. This, along with the high price level on supply markets for real estate, left the volume of real estate purchase and sale transactions short of the previous year's level (€4.4bn) at €3.1bn. Around 79% of the overall transaction volume concerned a total of 28 contractually secured property purchases. There were 19 disposals, representing 21% of the transaction volume. Business activities continue to centre on properties in the office, retail, logistics and hotel asset classes. With this transaction volume, the Deka Group remains one of Europe's most important property investors.

Business development in the Asset Management Services business division

The economic result for the Asset Management Services business division was €–1.0m (previous year: €21.4m). There was a renewed increase in the number of securities accounts in Digital Multichannel Management. In contrast, custody account volume fell slightly due to market developments. In the Depositary subdivision, however, assets under custody remained virtually unchanged over the course of 2022.

Business development in the Asset Management Services business division

The number of custody accounts for which the division is the legal provider increased by around 185,000 in the reporting year to 5.3 million. At 120.0 million, the number of securities transactions was also up on the previous year's figure of 99.1 million. This was due to the sales figures for savings agreements, with more than 368,000 additional savings agreements in 2022. Given the adverse market trend starting from early 2022, custody account volume in the Digital Multichannel Management subdivision fell to €170.2bn (previous year: €174.5bn). At S Broker, the investment volume declined slightly year-on-year to €12.6bn (previous year: €13.5bn). The number of securities accounts rose by around 6% to approximately 194,000. As of year-end 2022, the robo-advisory service bevestor GmbH has been integrated into the sales of 325 savings banks (previous year: 324) as part of the cooperation partner model. bevestor had arranged an investment volume of €207m (previous year: €175m) and managed around 34,000 customer custody accounts as of year-end 2022 (year-end 2021: around 23,000 custody accounts).

Despite a market-induced negative investment performance in asset management for both mutual funds and special funds, assets under custody in the Depositary subdivision remained virtually level with the previous year at €269.0bn (previous year: €270.3bn), particularly thanks to the contributions of special funds in custody.

Business development in the Capital Markets business division

At €176.4m, the economic result for the Capital Markets business division was significantly up on the previous year's figure of €122.8m. The business division continued to fulfil its important role as the Deka Group's provider of products, solutions and infrastructure.

Business development in the Capital Markets business division

The Collateral Trading & Currency subdivision remains well positioned in the repo/lending business. Business in 2022 remained at around the previous year's level due to the high market liquidity provided by ECB programmes such as TLTRO (targeted longer-term refinancing operations).

The Commission Business subdivision significantly exceeded its prior-year figures in business with shares, bonds, exchange-traded derivatives and supplementary services in 2022, driven by higher turnover.

In the Trading & Structuring subdivision, business was significantly up on the previous year. At €13.3bn, net sales of certificates at year-end 2022 exceeded the previous year's figure of €9.0bn. At €12.6bn, retail customers accounted for the lion's share of demand (previous year: €7.1bn). The figure for the reporting year includes partner certificates of €4.0bn. Net sales of certificates to institutional customers totalled €0.7bn (previous year: €1.9bn). Sales were boosted by the high level of volatility and interest rate rises, which made certificates more attractive. Derivatives trading also benefited from the certificate sales.

Business development in the Financing business division

The Financing business division generated an economic result of €128.6m (previous year: €94.9m). The business division's gross loan volume increased slightly from the end of 2021 (€25.7bn) to reach €27.1bn.

Business development in the Financing business division

Gross loan volume in the Specialised Financing subdivision amounted to €15.7bn (year-end 2021: €14.4bn). At the end of 2022, infrastructure financing accounted for €4.0bn (year-end 2021: €4.1bn), of which €1.4bn related to renewable energy. Public sector financing amounted to €3.5bn (year-end 2021: €3.5bn), export financing to €1.2bn (year-end 2021: €1.4bn) and transport financing to €3.8bn (year-end 2021: €3.7bn). The transport financing segment largely comprised aircraft financing of €2.3bn (year-end 2021: €2.4bn and ship financing of €1.3bn (year-end 2021: €1.3bn). Gross loan volume for savings bank financing increased significantly by €1.4bn compared with the end of 2021 to €3.1bn.

Gross loan volume in the Real Estate Financing subdivision increased to €11.5bn (year-end 2021: €11.3bn). The volume of commercial property loans declined slightly to €8.4bn (year-end 2021: €8.6bn). In relation to the gross loan volume in the Real Estate Financing subdivision, around 7% was attributable to the retail use type (year-end 2021: 8% and around 2% to the hotel use type (year-end 2021: 4%). Financing volume in open-ended real estate funds came to €3.0bn, compared with €2.7bn at the end of 2021.

The development of the business division's gross loan volume include repayments and other effects in the amount of approximately €4.4bn.

The average rating for the loan portfolio as a whole according to the DSGV master scale was unchanged versus the end of the previous year and remained at 7. This corresponds to a rating of BB on S&P's external rating scale. The average rating for Specialised Financing was also unchanged from the end of 2021 and stood at 7 (S&P: BB). The rating for Real Estate Financing improved by one notch from 6 at the end of the previous year to 5 (S&P: from BB+ to BBB–). Taking account of collateralised assets, the average rating for Real Estate Financing (on the DSGV master scale) improved from A– (S&P: A–) to A (S&P: A–).

At €6.7bn, the volume of new business in the Financing business division in the reporting year was up by a significant €1.6bn on the year-end 2021 figure of €5.1bn, particularly due to a strong increase in savings bank financing. At €3.4bn, new business in Specialised Financing was €1.2bn higher than in the previous year. The prior-year figure was also exceeded in Real Estate Financing at €3.3bn (year-end 2021: €2.9bn). Loans to savings banks accounted for 31% of total new business in the division (previous year: 2%). At €0.8bn, the total volume of placements was above the previous year's figure of €0.5bn. Around a third of this total was placed within the *Sparkassen-Finanzgruppe*.

Financial position of the Deka Group

Financial management principles and objectives

Via its Treasury corporate centre, DekaBank pursues an integrated approach aimed at the active management of group-wide liquidity, thus ensuring that flexibility and investor trust are retained even in difficult market situations.

The Treasury corporate centre manages group liquidity and Deka Group refinancing across all maturities and is responsible for asset-liability management. Treasury also heads the Management Committee for Assets and Liabilities (*Managementkomitee Aktiv-Passiv* – MKAP), which manages the strategic position of the Bank as a whole and makes recommendations for action in this regard to the Board of Management.

Treasury manages the liquidity management portfolio with a view to compliance with regulatory requirements and safeguarding the Bank's liquidity at all times. This portfolio comprises the liquidity buffer, which contains securities held to ensure liquidity in stress situations and liquidity shortages, other liquid assets (e.g. securities for cover registers) and the securities in the proprietary securities portfolio (Strategic Investments portfolio) The Strategic Investments portfolio is used to invest surplus financial resources and balance out differences in maturity structure.

Treasury manages market price risks in the banking book, counterparty risks in its own banking book and equity. By setting transfer prices for the whole Group, Treasury helps to ensure both that the balance sheet is evenly structured and in line with strategy, and that transactions are managed and calculated on a source-specific basis. It also assists the Board of Management with the handling of guarantee risks from funds and fund-related products.

DekaBank supports cash pooling for the savings banks and other companies of the *Sparkassen-Finanzgruppe*. It has high volumes of central bank-eligible highly liquid assets, which can be used to generate liquidity via various market access routes at any time.

For the securities that constitute the strategic investments, liquidity investing is focused on investments in investment-grade bonds, including from public sector issuers, financial services providers and corporates. Given the targets for the liquidity buffer, investment here concentrates on investments in bonds issued by German federal states, German development banks, German run-off institutions, German covered bonds (*Pfandbriefe*), supranational institutions, investment-grade corporate bonds and, where appropriate, credit balances held with central banks. Refinancing is carried out in a diversified manner using domestic and international money market and capital market instruments. This includes issues of covered bonds, bearer bonds based on the commercial paper (CP) programme and debt issuance programme, as well as the programmes for structured issues and certificates. These activities are supplemented by placements of registered debt securities along with promissory note loans and DekaBank's range of sustainable certificates. DekaBank also uses the repo and lending markets as well as daily and time deposits to raise and invest liquidity, and participates in the various central bank tenders (including TLTROs) as necessary.

See also:
Green bonds

As part of its continuing efforts in the field of sustainability, DekaBank has developed a Green Bond Framework in line with the ICMA Green Bond Principles 2018. This framework enables the issue of green bonds and certain certificates as required as part of ongoing issuing activities. The funds raised are used to fully or partially finance appropriate green loans – new or existing lending in renewable energy and green buildings.

Derivative financial instruments are used for trading purposes and to hedge interest rate risks, currency risks and other price risks in the banking book and trading book. DekaBank does not have extensive open interest or currency positions. Details of derivative transactions can be found in the consolidated financial statements.

Changes in the DekaBank balance sheet

The increase in deposits on the liabilities side at DekaBank resulted partly from the positive net sales and associated increase in liquid funds within the Deka investment funds. In addition, to meet the increased financing needs of savings banks through money market transactions, DekaBank increased its bond issuing, including for *Pfandbriefe* (covered bonds). Moreover, the sharp rise in interest rates led to an increase in the fair values of interest rate derivatives held for hedging purposes. These effects in particular caused total assets to rise by 10.6% to €100.4bn (previous year: €90.8bn).

Amounts due from banks and customers rose by €23.1bn in the period under review to €54.1bn. The increase resulted from deposits (overnight money) with Deutsche Bundesbank in the form of a deposit facility reported as amounts due from banks on demand. It also partly reflected increased money market transactions due to greater demand, principally from savings banks. Bonds and other fixed-interest securities increased by €0.8bn to €9.8bn. The trading portfolio (assets) grew from €32.7bn to €34.2bn. This was due in particular to the rise in interest rates in the reporting year, which resulted in a higher fair value for derivatives held for hedging purposes.

Amounts due to banks and customers increased to €39.9bn overall (previous year: €36.2bn). The change resulted mainly from higher call and time deposits with DekaBank by customers and other banks. Securitised liabilities increased by €2.0bn due to the issue of bonds and amounted to €11.7bn. As with the assets, there was an increase in liabilities in the trading portfolio as a result of the higher interest rates. At €39.9bn, they were up by €3.6bn.

Changes in the DekaBank balance sheet *in €m (Fig. 12)*

	31.12.2022	31.12.2021	Change	
Total assets	**100,420**	**90,756**	9,663	10.6%
Selected asset items				
Due from banks and customers	54,077	31,009	23,068	74.4%
Financial assets at fair value	9,809	8,966	843	9.4%
Financial investments	34,222	32,730	1,492	4.6%
Selected liability items				
Due to banks and customers	39,949	36,243	3,706	10.2%
Securitised liabilities	11,729	9,752	1,977	20.3%
Financial investments	39,902	36,295	3,607	9.9%

Capital and liquidity adequacy

Full details of capital and liquidity adequacy in the 2022 financial year are provided in the risk report section of the Group management report.

See also:
Risk report:
page 45 ff.

Development of capital market ratings

At year-end 2022, DekaBank's capital market rating remained among the best in its peer group of German commercial banks. This enables access to the money and capital markets on stable and competitive terms.

The rating assessments from Standard & Poor's (S&P) and Moody's reflect the high strategic importance of the Deka Group to the savings bank sector as well as the adequate capital and liquidity base for its business model. For example, DekaBank has an issuer rating of A from S&P and Aa2 from Moody's and a stable outlook with both agencies.

Ratings overview *(Fig. 13)*

	Standard & Poor's	Moody's
Bank Ratings		
Issuer Rating	A (stable) Issuer Credit Rating	Aa2 (stable) Issuer Rating
Counterparty Rating	N/A	Aa2 Counterparty Risk Rating
Deposit Rating	N/A	Aa2 Bank Deposits
Own financial strength	bbb Stand-alone Credit Profile	baa2 Baseline Credit Assessment
Short-term rating	A–1 Short-term Rating	P–1 Short-term Rating
Issuance Ratings		
Preferred Senior Unsecured Debt	A Senior Unsecured Debt	Aa2 (stable) Senior Unsecured Debt
Non-Preferred Senior Unsecured Debt	A– Senior Subordinated Debt	A2 Junior Senior Unsecured Debt
Subordinate Debt (Tier 2)	N/A	Baa1 Subordinate Debt
Additional Tier 1 debt	N/A	Baa3 (hyb) Preferred Stock Non-cumulative
Public Sector Covered Bonds	N/A	Aaa Public Sector Covered Bonds
Mortgage Covered Bonds	N/A	Aaa Mortgage Covered Bonds

In November 2022, Moody's downgraded its rating for DekaBank's non-preferred senior unsecured debt by one notch from A1 to A2. This rating adjustment resulted from Moody's Advanced Loss Given Failure analysis, which looks at the structure of liabilities. All other ratings and DekaBank's outlook were unaffected by this change.

S&P and Moody's include ESG factors in their credit ratings. With their respective credit indicators for ESG factors, the rating agencies aim chiefly to increase transparency around the rating criteria and highlight the potential impact of ESG factors on credit ratings.

S&P's ESG credit indicators for DekaBank are neutral, i.e. ESG factors do not currently affect the credit rating in S&P's view. This is underlined by the E-2 (Environmental), S-2 (Social) and G-2 (Governance) scores.

The ESG Credit Impact Score (CIS) from Moody's for DekaBank is also neutral (CIS-2). Moody's therefore also currently sees no impact of ESG factors on the credit rating.

Human resources report

The total number of employees at the end of 2022 stood at 5,084 and was slightly up on the previous year (year-end 2021: 4,854). The number of employees is determined by counting the number of employment contracts (temporary and permanent) in existence at the reporting date, including inactive employees, trainees and interns. At 4,373, the number of earnings-relevant full-time equivalents as at 31 December 2022 was slightly higher than at the end of 2021 (4,243). The number includes part-time employees actively involved in work processes in the Deka Group, who are counted *pro rata* on the basis of their working hours. At the year-end, approximately 77% of the workforce were employed in full-time posts. The average age of active employees (excluding apprentices and inactive staff members) was 45.5 years (previous year: 45.3 years). Further key indicators regarding sustainable HR management can be found in the sustainability report.

See also: 2022 sustainability report

The implementation of topics from the strategic action programme 2025 had an impact on structures, processes, roles and tasks throughout the Group. For example, interdisciplinary teams worked on enhancing talent management and on the organisational focus. The updated understanding of leadership is being gradually implemented across the departments. This work is accompanied by regular surveys to take the pulse of the workforce, which cover the Deka Group's attractiveness as an employer and employee satisfaction. The August 2022 survey backed up previous findings. It showed that 86% are happy or very happy at the Deka Group and that 78% of employees believe that Deka will remain an attractive employer in future.

The world of work is fundamentally changing: digitalisation and demographic change are resulting in a shift from an employer's market to an employee's market. While demographic change is reducing the available workforce, digitalisation is changing the nature of the skills required. The tasks for long term-oriented HR management thus include the successful recruitment, long-term retention and ongoing professional development of employees, as well as placing them in roles where they can realise their full potential. It also involves creating a healthy working environment fit for the future and promoting a diverse workforce and an inclusive corporate culture. The Equality Plan and the mainstreaming of diversity management within the Deka Group are two measures that contribute to achieving these objectives. In 2022, the Deka Group also launched a special new trainee programme for the topics of the future, which recruits trainees specifically in the fields of "blockchain/DLT/agile development (cloud)", "ESG/sustainability" and "digitalisation, processes and innovation". These and other measures are accompanied by attractive working conditions that are being constantly enhanced for both new employees and those who have already been at Deka for many years. The new office building in Frankfurt-Niederrad, for example, offers ultra-modern workstations and spaces for creativity and sharing ideas.

Since 2020, Deka has been making increased use of mobile working. This allowed the infection risk to be significantly reduced to protect employees during the coronavirus pandemic. Hybrid working has now become the new normal in the Deka Group. More than 70% of employees on average used mobile working in 2022. Mobile working also promotes work-life balance, as do a wide range of options such as part-time working, flexible working hours and support for those with family obligations. Irrespective of the mobile working arrangements, teams can also choose at any time to work from the office and meet in person whenever they need to.

In the context of the pandemic, the increasing complexity of the working environment and demographic change, employees' health is further growing in importance. The Deka Group aims to further improve the working conditions and health services it provides, tailoring these according to people's age, gender and other factors. Various offerings are available to support people's physical and mental health, including via the "machtfit" digital health platform. In 2022, this commitment to our employees was recognised by the Corporate Health Award: The Deka Group won the special prize in the Digital category for its particularly modern and innovative health management services. The initiators also judged the Deka Group to have an outstanding corporate health management system and awarded us their seal of excellence.

Forecast and opportunities report

The structure and content of the forecast and opportunities report section correspond to the relevant section published in the Group management report of the Deka Group. Group and business division planning are oriented towards the Deka Group, while Group management is aligned with the business divisions, thereby incorporating all business divisions and legal entities including DekaBank in its capacity as an individual institution. Therefore, no separate forecast and opportunities report has been prepared at individual institution level.

Forecast report

Forward-looking statements

The Deka Group's planning is based on the assumptions about future economic development that appear the most probable from a current standpoint. However, plans and statements about expected developments and the course of business during 2023 are subject to uncertainty.

Actual trends in the international money, capital and property markets and in the Deka Group may diverge significantly from our assumptions, which are partly based on expert estimates.

See also:
Risk report: page 45 ff.
Opportunities report: page 44 ff.

The Deka Group's risk position is explained in full in the risk report. If the risk scenarios referred to in the risk report should materialise, for example as a result of stress situations or counterparty default, this may result in negative differences from the forecast during the remaining months of the 2023 financial year. Conversely, opportunities may result in expectations being exceeded. The opportunities for the Deka Group are set out in the opportunities report.

The consequences of the war between Russia and Ukraine remain impossible to fully predict in 2023. If the war in Ukraine worsens further or other geopolitical tensions escalate, this may hit economic growth and the capital markets. It also cannot yet be predicted how changes in supply chains and structural changes in energy prices will be reflected in corporate profitability. As a result, estimates of the development of growth and inflation are subject to change. This would also have implications for the monetary policy environment set by central banks. Future market developments therefore remain highly uncertain, and the earnings, risk and capital situation, as well as the corresponding key management indicators, may show less favourable development than that presented in the forecast report.

Expected macroeconomic trends

DekaBank expects a slowdown in most regions of the world in 2023. A host of industrialised countries will experience a slight recession in the winter months. The subsequent recovery is likely to be sluggish. Overall, global gross domestic product is predicted to rise by 2.3% year-on-year in 2023. In the United States, the restrictive monetary policy will be the main factor holding growth back. In China, the coronavirus pandemic will continue to play a noticeable negative role early in the year, while economic activity in Europe will be hit by the war in Ukraine and high energy prices.

Economic upheaval will shape 2023. Given the need to tackle inflation, economic actors will need to grapple with further interest rate hikes. As the cost of servicing debt rises, this will have consequences for consumer spending. Companies will need to review their business models and more closely examine whether new investment plans will still pay off. Added to this is the fact that while digitalisation, decarbonisation and demographic change all have far-reaching and long-term implications, many structural challenges for businesses are already arriving in 2023. The reorganisation of supply chains, some of which have been broken by the war and pandemic, continues. The uncertainty associated with the structural changes in the economy, which are under way and intensifying, will allow only limited growth momentum in the coming year.

If central banks continue their restrictive monetary policy, fiscal and wage policy will seek a more supportive stance. Nevertheless, real incomes are expected to fall again in the coming year, meaning that little growth impetus will come from consumer spending. On the other hand, labour markets will remain relatively healthy. Widespread corporate insolvencies and significant increases in unemployment are not expected. However, the war in Ukraine and concerns about energy supplies will continue to weigh on consumer sentiment in Germany and Europe.

Expected sector-related conditions

The monetary policy of the major central banks is likely to be influenced by highly elevated inflation levels again in 2023. The fact that energy prices have dropped again means that overall inflation rates can be expected to fall significantly due to base effects. However, they are set to remain well above the 2% target even towards the end of the year in both the United States and the eurozone. This will mainly be due to the persistence of core inflation, which does not include consumer prices for food and energy. The passing-on of higher costs for energy, other commodities and intermediate products is likely to gradually wane in significance. The above-average price rises for those services that benefited from pent-up demand after the end of the pandemic are also likely to ease over time. Nevertheless, wage rises are expected to accelerate somewhat further, especially in the eurozone. Even if employees are only partially compensated for their loss in purchasing power and a wage-price spiral is avoided, the passing-on of higher wage costs will likely permit no more than a gradual decline in core inflation.

In response to this picture, the US Federal Reserve (Fed), the ECB and central banks in other industrialised countries are likely to tighten their monetary policy somewhat further and then maintain it at this more restrictive level until the general trend of rising wages and prices has eased sufficiently strongly. As monetary tightening in the United States is already more advanced, the Fed is likely to keep further key rate rises small. At the same time, however, it is likely to clearly communicate that it does not intend to cut rates any time soon. The ECB signalled after its Governing Council meeting in December 2022 that it regards significantly higher key rates as necessary in the near future. Further rate hikes are therefore expected in 2023.

In addition to lifting key interest rates, the ECB will work on reducing its balance sheet, which has expanded considerably in recent years through long-term refinancing operations and asset purchases. A majority of the still outstanding long-term tenders under the TLTRO III programme will be due for repayment in the course of this year. Banks are also likely to repay some of the remaining funds due to the less attractive terms and conditions. In addition, the ECB will begin in March to reduce its holdings under the Asset Purchase Programme (APP) by not fully reinvesting the principal from maturing bonds. In the second half of the year, it can be expected to up the run-off pace from the initial €15bn per month. However, the maturity profile of the APP portfolio is a limiting factor, as the ECB has so far ruled out selling bonds. As it also plans to reinvest proceeds from the Pandemic Emergency Purchase Programme (PEPP) until at least 2024, a still very high level of surplus reserves is likely to remain at year-end despite a considerable reduction in the balance sheet.

Money market futures are already assuming significant key rate hikes at the next ECB Governing Council meetings, which means there is limited scope for surprises on this front. Moreover, money market rates are unlikely to diverge appreciably from key rates. In the context of still high levels of excess liquidity in the banking system, the overnight rate (Euro Short-Term Rate (€STR) in particular is likely to remain just below the ECB deposit rate. Only in the case of the longer-term EURIBOR rates is the no longer quite so abundant supply of liquidity likely to lead to a slight widening of maturity premiums.

In their most recent interest rate decisions in 2022, the Fed, ECB and Bank of Japan again signalled surprisingly hawkish outlooks to the capital markets for the 2023 trading year. This resulted in an upward shift in the expected key rate paths for these central banks, and there is still potential for them to rise further. Accordingly, volatility will remain high in 2023. Prices for securities with long maturities will also remain under pressure from the announced reduction in central bank securities portfolios. This will be especially the case for sovereign bonds from countries in the eurozone periphery. Increased financing programmes, such as those put in place by the German Finance Agency (*Bundesfinanzagentur*) for the German government and by the EU for its recovery programmes, are also hitting the bond markets.

On credit markets, too, volatility will remain high. Corporate results may prove worse than expected under the influence of the recession in the winter quarters. Like many analysts, the credit rating agencies will then review their forecasts and potentially adjust them downwards. The ratings trend for the major agencies is thus likely to remain negative, and default rates for companies in the high-yield segment may well increase further. The increase in credit defaults is expected to be relatively moderate, however, as many large companies took advantage of the remarkably favourable financing conditions in previous years to increase their liquidity. For corporates, risk premiums on the credit markets are therefore likely to go up. In general, however, many negative expectations are already priced in, which could allow yield levels to partially compensate for unwelcome surprises.

For global equity markets, the announcements of further interest rate hikes by the major central banks represent an additional challenge. The difficult environment in the real economy has already led increasingly to poorer corporate results. Businesses have more and more been unable to translate the still high nominal revenue growth into corresponding profit growth – a trend that could continue or even worsen somewhat in the coming months. Aggregate demand is weak, and inflation rates are at levels where the corporate sector has found it increasingly difficult to maintain profitability in the past. This is compounded by rising wage, energy and interest costs. Profit expectations of market participants with regard to corporate results are therefore likely to be corrected downwards. The development of the pandemic in China poses another risk. The relaxation of the strict lockdown measures initially fuelled hopes of a noticeable improvement in global trade flows. On the flip side, however, excessive infection rates threaten to put a heavy brake on this by causing large-scale disruption to production.

Given the many negative factors affecting the global economic outlook, stock market valuations at the start of 2023 can be categorised as neutral. This applies to Germany, the eurozone and the emerging markets. Strong rises in stock prices are not expected in 2023 given the new competition from corporate bonds. Investable risk capital on the part of investors is likely to be increasingly split between the two investment forms.

Real estate asset management remains an appealing asset class. The recovery on global office rental markets is likely to be hampered by the weak economic growth. The supply side will act as a market stabiliser. High construction and financing costs will force developers to rebudget or abandon planned construction projects. The construction cycle is likely to have peaked in 2022. We expect robust but less dynamic rent rises in 2023. As a result of the expected continuing monetary tightening, further significant changes to initial yields can be anticipated in 2023 both for office buildings and for retail, hotel and logistics properties. As real interest rates are likely to be negative even over the long term, real estate is set to remain an attractive asset class.

Overall assessment of the expected economic trends

DekaBank expects a challenging economic environment overall in financial year 2023 due to the uncertain developments in economic growth and the capital markets. The high levels of financial assets held by private households, the investment needs of institutional investors and the negative real interest rates offer potential for fund and certificate sales. This is set against what is still noticeable caution among investors. How far interest rates continue to rise and whether this triggers a structural change in customers' investment behaviour will also be crucial factors. The financing business will benefit from the increased demand from savings banks; in the other segments, however, it may face reticence and increased risk provisioning needs given the economic trend.

Expected business development and profit performance

The strategic action programme 2025 continues to set the direction of travel to make the Deka Group a customer-oriented, innovative and sustainable *Wertpapierhaus*. This agenda remains focused on the broad themes of digitalisation and sustainability.

The consequences of the war between Russia and Ukraine remain impossible to fully predict in 2023. If the war in Ukraine worsens further or other geopolitical tensions escalate, this may hit economic growth and the capital markets. It also cannot yet be predicted how changes in supply chains and structural changes in energy prices will be reflected in corporate profitability. As a result, estimates of the development of growth and inflation are subject to change. This would also have implications for the monetary policy environment set by central banks. Future market developments therefore remain highly uncertain, and the earnings, risk and capital situation, as well as the corresponding key management indicators, may show less favourable development than that presented.

Based on another good performance for operating activities, and excluding the positive valuation effects, the Deka Group achieved an economic result of €741m in 2022. In the context of the current geopolitical and economic risks and the exceptionally high uncertainty in the planning assumptions for 2023, we expect an economic result slightly above €500m. The Deka Group is aiming for a return on equity before tax (balance sheet) of over 8% in financial year 2023. The cost/income ratio should come to less than 70%.

Net commission income is forecast to remain the main component of income, accounting for over 80%. This is based on the anticipated positive development of total customer assets and a net sales performance well into positive territory. The expected economic result will ensure that DekaBank remains able to distribute profits and to make the reinvestments needed to strengthen its capital.

Sales plans continue to concentrate on an investment fund business that maintains lasting value. This includes regular securities saving and an expanded range of sustainability-related products and services. The Deka Group anticipates a slight year-on-year rise in total customer assets in 2023. As part of our forecast for the retail customer business, we expect net sales of between €20bn and €25bn. Due to the loss of an institutional securities mandate, net sales for business with institutional customers in 2023 are expected to be significantly below the prior-year figure.

The Asset Management Securities business division will continue its proven strategic direction in 2023 and concentrate on continuing to develop its range of high-quality products and services in close coordination with the sales departments. Digitalising processes all along the value chain to further improve quality, efficiency and service levels is key to this. Sustainability aspects, taking into account the Group strategy and regulatory requirements, will remain a focus. In the retail segment, we will concentrate on an investment fund business that maintains lasting value and on products for regular saving. Starting from summer 2023, Deka-Connect+ will be a major component of this as a new fund-based asset management service in Germany. We will continue to expand digital sales channels and strengthen the product focus for institutional sales. In the retail business, the business division expects net sales to exceed the 2022 level. Net sales in the institutional business will be down on the previous year due to one-off effects. An overall increase in total customer assets is expected.

Risks for the investment fund business in the Asset Management Securities business division may arise from a expansion of the war between Russia and Ukraine, changing supply chains, and structural changes in energy prices with a knock-on effect on corporate profits. Fundamental changes involving spiralling inflation and contractionary monetary policy may also adversely affect the securities markets and thus the investment fund business. In the medium term, other political and geopolitical conflicts and significantly more volatile economic development may also bring risks. This and other factors may hit investors' risk appetite and result in outflows of funds and reluctance to invest. In addition, a pronounced stock market correction could negatively affect total customer assets.

The Asset Management Real Estate business division's mission in 2023 is to provide the savings banks with high-quality real estate- and real estate financing-based investment products with sustainable features for their customer business and proprietary investments. The business division wants to be the preferred partner for savings banks and their customers when investing in commercial real estate. Portfolio and (real estate) risk management will be constantly developed, taking advantage of potential for digitalisation. In open-ended real estate funds for retail customers, the business division plans to build on what is already an excellent market position without compromising on quality or stability and is aiming for a year-on-year increase in net sales. In the institutional business, it is seeking to improve its market position despite the current investment restraint among customers. Existing and new products, such as the newly launched infrastructure fund of funds, *Deka Infrastruktur Selektion*, will support this goal. The business division expects a higher transaction volume than in 2022 and thus an increase in real estate assets and total customer assets. Consistently taking sustainability criteria into account in property purchases and portfolio management will ensure that Deka remains attractive to sustainability-oriented investors. The product range in the area of sustainability will be gradually expanded. The business division will also drive further digitalisation of business processes and collaboration with sourcing partners to further improve process efficiency and resource use.

There are risks to the performance of the Asset Management Real Estate business division from the consequences of the war between Russia and Ukraine. Persistent inflation and the resulting higher interest rates may result in a downward trend in property values. This effect will probably be only partially compensated by indexed rents. When interest rates increase, the appeal of real estate funds can diminish in comparison to possible substitute products, even when real estate portfolios are conservatively valued. Further uncertainties are the difficult situation and high costs affecting gas supplies, along with the unpredictable effects on tenants and resulting economic upheaval. The business division's continued aim is to respond to each individual situation of its business partners and find viable long-term solutions that enable the funds to maintain profitable rental relationships. Pricing on national and international real estate markets currently remains fraught with uncertainty. The continued high price level currently means a difficult market environment for transaction planning. Risks are also expected from continued strong regulatory pressure.

For 2023, the Asset Management Services business division again aims to increase assets under custody in line with the targeted asset management growth. The Digital Multichannel Management subdivision will continue with its strategic direction. It aims to realise efficiencies through its multichannel offering, which involves the seamless integration of physical branches and other sales channels for the securities products offered by the savings banks. Combined with contemporary, innovative services such as the bevestor GmbH robo-advisory product, this will ensure and expand access to the customer interface in the *Sparkassen-Finanzgruppe*. Innovative solutions, ideas and trends in the securities business, such as the use of blockchain technology, artificial intelligence and data analytics, will also be trialled.

As in previous years, the Depositary subdivision is aiming to maintain a strong competitive position and to constantly grow the volume of assets under custody in its business involving mutual and special funds, third-party mandates and investment managers, focusing on developing a comprehensive asset servicing solution (master KVG and depositary). The aim is to further enhance its market position in Germany. Custody of crypto securities has been implemented in the Depositary subdivision as part of the digitalisation initiative. To enable these services to be offered to the Depositary subdivision's customers in future, the introduction of a depositary system for digital assets is planned.

Risks to Digital Multichannel Management arise principally from a delayed implementation of the multichannel strategy due to an insufficiently developed multichannel offering. Risks may arise for custody account business from disruption to product development with a knock-on effect on custody account sales. Risks to business performance in the Depositary subdivision include rising pressure on margins as well as market-induced outflows of assets under custody. The consequences of the war between Russia and Ukraine may also trigger a pronounced correction on stock markets, negatively impacting assets under custody and thus the income achievable in this subdivision.

In 2023, the Capital Markets business division will maintain its proven strategic direction as a customer-centric product and solution provider focused on DekaBank's structured products and the derivatives, issuance and trading business. In so doing, the division will encounter regulatory requirements and current market developments in its own business as well as that of the savings banks. It intends to maintain its position as an infrastructure provider with international capital market access through systematic digitalisation and further development of the existing platform solutions. In the certificates business, net sales for retail customers will remain front and centre in 2023. After an unusually high figure for 2022, net sales are expected to return to the levels seen in previous years in 2023.

Risks to the development of the Capital Markets business division arise particularly from negative capital market developments and recessionary fears, accompanied by persistently high inflation, resulting in lower customer activity levels. The unpredictable consequences of the war between Russia and Ukraine, the energy crisis, global trade conflicts and supply chain difficulties are central to this. Additional risks arise from regulatory intervention in the design of products and definition of terms and conditions and further increased market pressure on fees. Regulatory or adverse monetary policy escalations leading to additional capital backing or reporting obligations may also affect business performance.

For its business activities in 2023, the Financing business division will continue to concentrate on its defined and well-established segments: specialised financing and real estate financing in liquid markets. Being a sought-after financing partner for the savings banks will remain its main aim. The division will seek to generate new business where this contributes to its objectives and to appropriate management of the balance sheet structure. The size of the financing portfolio is expected to remain at around the previous year's level. The business division will maintain its stability-focused and risk-conscious strategy.

Risks for the Financing business division currently arise from the continuing war in Ukraine and persistently high inflation. This may adversely affect the quality of loan exposures, leading to higher risk provisions and increased capital requirements due to rating downgrades. Further risks may arise from specific creditworthiness risks on the part of borrowers, which could adversely affect the economic outlook for lending segments in which we operate. This could also lead to a need for higher risk provisions, or to increased capital adequacy requirements as a result of a downgrading of our credit ratings. A worsening of other global political crises may have similar effects. Business performance may also be negatively affected by increasing competitive pressure for project and infrastructure financing due to institutional investors acting as direct lenders.

Expected financial and risk position

The Deka Group anticipates a continued sound financial position for 2023. Total assets will be subject to the usual business-related fluctuations over the course of the year. The planning assumption is for total assets of around €100bn at year-end 2023.

The Deka Group expects to maintain an adequate capital and liquidity base in both the normative and economic perspective for 2023. To retain sufficient flexibility in the event of unfavourable market developments, the Deka Group aims for a Common Equity Tier 1 capital ratio at an appropriate level above the strategic target of 13%.

Balance sheet management is geared towards ensuring compliance with an appropriate leverage ratio well above the minimum ratio of 3%, as well as compliance with the requirements for RWA- and LRE-based MREL and with the subordinated MREL requirements.

In terms of risk-bearing capacity analysis, risk appetite utilisation is expected to remain at a non-critical level. With regard to risk development, however, elevated uncertainty regarding the further development of the market environment cannot be ruled out.

The Group's liquidity position is forecast to remain at a comfortable level. Likewise, all relevant ratios such as LCR and NSFR are expected to be comfortably adhered to with sufficient flexibility.

Forecast development of key performance indicators in the of Deka Group *(Fig. 14)*

		31 Dec 2022	Forecast 2023 in the Annual Report 2022
Economic result	€m	984.8	Slightly above 500
Return on equity before tax (balance sheet)	%	17.0	Above 8
Cost/income ratio	%	55.0	Below 70
Total customer assets	€bn	371.8	Up slightly year-on-year
Net sales	€bn	27.4	
Retail customers	€bn	20.8	20 to 25
Institutional customers	€bn	6.6	Down significantly on the previous year due to a one-off effect
Common Equity Tier 1 capital ratio	%	17.4	Above 13
Utilisation of risk appetite	%	59.9	At a non-critical level

Opportunities report

Opportunity management

Opportunity management is built into the Deka Group's overall management concept. Opportunities are continually identified and evaluated as part of the strategic process. Decisions on resources to be made available to exploit additional potential in different areas of opportunity are taken on the basis of the expected impact on risks and earnings and probability of occurrence. Continuous and intensive market observation and the feedback processes established with the savings banks ensure that the assessment of the opportunities portfolio is regularly updated. This allows the Deka Group to actively manage its opportunities and react to new developments swiftly.

Opportunities are defined as positive deviations from the assumptions made for planning purposes over a one-year horizon. These essentially fall into three categories:

- Opportunities arising from changes in circumstances result from market developments that are more favourable than expected. These include regulatory changes or changing investment trends on the part of customers.
- Corporate strategy opportunities are mainly linked to the strategic action programme 2025, which is designed to put the *Wertpapierhaus* strategy into practice. Positive effects linked to these measures may be more extensive or occur sooner than assumed in the forecast report.
- Other opportunities lie in greater than anticipated process improvements or positive earnings effects from projects in the efficiency portfolio.

Current opportunities

The assumptions on economic trends made in the forecast report represent the most likely scenario from the point of view of the Deka Group. Nevertheless, economic trends may turn out to be better than the baseline scenario assumes. The positive macroeconomic scenario described below is considered rather unlikely, however. A rapid reversal of the restrictive monetary policy, major investment in the structural transformation towards greater digitalisation and sustainability, increased confidence and significant productivity gains could lead to surprisingly high growth without any significant rise in inflation, despite high capacity utilisation. Thanks to the reduction of debt, the recovery of financial systems would continue apace. In this scenario, it is possible that a more significant than expected rise in equity and bond indices could lead to stronger growth in total customer assets and have a positive impact on net commission income. A steepening yield curve could improve the conditions for investing own funds and managing liquidity.

Opportunities from market developments could also be generated by an even stronger customer shift towards funds, ETFs and certificates for financial savings. However, the Deka Group anticipates that this process will continue to take place only gradually. Nonetheless, if the popularity of funds, ETFs and certificates should increase by more than forecast in planning, this would have a beneficial impact on net sales and total customer assets.

There are strategic and other opportunities associated with the strategic action programme 2025. The resultant effects have already been incorporated into the planning for 2023, meaning that any further positive impacts on the Deka Group's business and results are unlikely.

Risk report

The structure and content of the following risk report correspond to the risk report published in the Group management report of the Deka Group. Risk management and risk control are oriented towards the Deka Group, thereby incorporating all business divisions and legal entities including DekaBank in its capacity as an individual institution. Therefore, no separate risk report has been prepared at individual institution level.

Risk policy and strategy

The basic principles underlying the Deka Group's risk policy remain largely unchanged from the previous year. Noteworthy developments in risk management are explained in the report. In order to achieve its commercial objectives, the Deka Group accepts certain risks in line with strategic requirements. These risks are limited by a comprehensive risk management system that covers all types of risk and all business divisions, sales units and corporate centres in order to ensure the success of the Deka Group as a business. The framework for business and risk management is provided by the general concept of risk appetite (Risk Appetite Framework – RAF), which forms the main basis for assessing the adequacy of internal capital and liquidity (Internal Capital Adequacy Assessment Process (ICAAP)/Internal Liquidity Adequacy Assessment Process (ILAAP)) and is an integral part of the Deka Group's strategy system. The aim of the ICAAP and ILAAP is to help ensure the Deka Group's continued existence by maintaining adequate capital and liquidity and to contribute to effective risk management. To this end, there is a distinction within the ICAAP and ILAAP between the economic and normative perspective.

A strong risk culture for the Deka Group is key to the lasting achievement of the business policy objectives set out in the business strategy. Without risk-appropriate behaviour and a sensible approach to risks, it would be impossible to limit them through overall risk management and ensure the Deka Group's lasting business success. The concept of risk appetite and the procedures for monitoring compliance with it form one of the three fundamental pillars of the Deka Group's risk culture. They are complemented by sound governance and a remuneration system that encourages appropriate risk behaviour. Processes are in place to ensure that these three pillars are continuously adjusted to changing circumstances. Staff and leadership behaviour – risk culture in the narrower sense – are shaped by the rules set down in the Code of Ethics and by the Deka Principles of Leadership, in addition to the aforementioned formal components.

The Deka Group has adopted a risk culture framework laying down binding guidelines for the responsible handling of risks in the Deka Group and for compliance among employees, managers and Board of Management members in relation to this. The framework also sets out the guiding principles that detailed rules on processes and tools have to adhere to. All Deka Group employees receive information and undergo awareness-raising measures on risk culture-related topics through mandatory annual training. The Deka Group conducts a regular survey of the risk culture. The findings from this and other more in-depth survey tools are addressed and feed into the ongoing evolution of the risk culture.

See also: Opportunities report: page 44 ff.

The risk position of the Deka Group presented in the risk report corresponds to the definition used as the basis for presentation of the Deka Group's business development and profit performance in the economic report. The report focuses on risks that are relevant from the point of view of the Group. Opportunities that might be used to counteract an increase in risk are presented separately in the opportunities report.

Strategy process

In accordance with the German Minimum Requirements for Risk Management (*Mindestanforderungen an das Risikomanagement*, MaRisk), the Group uses a systematic strategic process to ensure that its Group-wide business strategy, management and structure, as well as the corresponding divisional and sales strategies and the risk strategy, are reviewed at least once a year. The reviews consider whether these items are consistent, complete, sustainable and up to date. The process covers the planning, implementation and evaluation of the strategies and any necessary adjustments to them. Division-specific targets for risk and profit are used in order to ensure that the business and risk strategy is implemented appropriately in the business divisions.

The risk data aggregation strategy fleshes out the risk strategy in terms of the general requirements and specifications for effectively aggregating risk data and for risk reporting. As part of the risk strategy, it is an integral part of the strategic architecture and systematic strategic process.

Sub-risk strategies are formulated for material types of risk identified during the risk inventory: counterparty risk, market price risk, operational risk, business risk and liquidity risk. These risk strategies are derived from the Deka Group's risk strategy as well as the strategies of the business divisions and provide specific details regarding risk monitoring and management. They are also reviewed at least once a year, revised if necessary, approved by the Board of Management and discussed with the Administrative Board.

Developments in risk management

The Deka Group refined parts of its risk management and control in the reporting year, taking due account of regulatory requirements.

Two further indicators were added to the internal processes for managing and monitoring liquidity in the year 2022. The EBA Guidelines on recovery plan indicators published in 2021 require the recovery plan to use an indicator for available, central bank-eligible, unencumbered assets. As part of the implementation of this requirement, additional thresholds, monitored daily, were therefore added for available, central bank-eligible, unencumbered assets, and the liquidity emergency plan was enhanced in line with this. To limit the risks from unstable sources of funding, thresholds were introduced for the issue of commercial papers, setting the maximum volume of debt due within each maturity band. In addition, the method for calculating liquidity needs for intraday liquidity risks was developed into a scenario-based quantitative modelling approach. A new methodology based on tiered stress scenarios was introduced to evaluate the significance of climate and environmental risks. This was used to quantitatively analyse the materiality of risk drivers.

The correlation assumptions between industries and segments used in the credit portfolio model were adjusted at the end of May 2022 as part of the regular update process, and the representativeness of the crisis correlation estimate was improved through a stronger inclusion of crisis phases. The updated correlation assumptions resulted in an increase in economic counterparty risk. Risks were also increased by the greater consideration of double-default risks for securities received as collateral, which was implemented at the end of October 2022. The updates to the migration matrices, which were carried out at the same time, had a risk-reducing effect.

The revised model for quantifying business risk went live for the Capital Markets and Financing business divisions at the end of February. At its core, the revised model switches the relevant planned figure to the net income contribution for the following year included in internal capital, thereby bringing this into alignment with the other business divisions. This contribution is based on the economic result expected for the next 12 months but with a focus on earnings components that are achievable on an economically sustainable basis. Under the revised model, the business risk in these two business divisions is immaterial. It is therefore not explicitly included in the quantification of business risk at present.

For the purposes of developing a holistic reputational risk management system, guidance for the management of reputational risks was put together and implemented across the Group at the end of 2021. This was based on the methods, processes and responsibilities refined during a trial stage. A scenario-based approach to separately quantifying reputational risk is being developed as part of a project in the current year. This is intended to transparently show and quantify the chain of reputational effects.

Since reputational risk is regarded as a Group-level issue whose causes cannot be clearly allocated to an individual business division, it is impractical to break down the risk amount for reputational risk by business division. For 2023, it is therefore intended to integrate reputational risks into the risk-bearing capacity calculation as a deduction from internal capital.

Implementation of the vision adopted by the Board of Management for the establishment of an integrated management system for non-financial risks (NFR) continued as planned. This involved completing an initial assessment of all risk sub-types falling under operational risk, taking into account the minimum requirements defined for the measurement of non-financial risks. In addition, risk type-specific NFR Indicators were chosen to monitor compliance with the qualitative risk tolerance rules using the thresholds set and to ensure transparency about the risk situation. Building on this, NFR reporting encompassing all risk sub-types took place for the first time. In future, this will form the basis for applying standardised risk management and escalation processes.

In 2022, the Deka Group continued its activities for integrating sustainability risks into management in a structured and targeted manner. This relates to the areas business strategy, governance, risk management and disclosure. In order to consistently factor in climate and environmental risks at the Deka Group, the risk taxonomy was refined further and a catalogue of the drivers of climate and environmental risks (C&ER risk driver universe) developed. The latter describes the basic chains of effects and the channels by which these are transmitted to market participants and the Deka Group's business operations and business activities. Analysis of the significance of sustainability risks, first performed in 2021, was systematically enhanced so as to systematically identify and measure sustainability risks. Given the importance of climate change and the associated impacts, this analysis continued to focus on climate and environmental risks. A risk-driver analysis was performed to identify the significant drivers of climate and environmental risk for the Deka Group. This examines business model-specific vulnerabilities and impacts on the material risk types. The current risk-driver analysis examined a time horizon of at least five years, thereby identifying short- and medium-term climate and environmental risks. In 2023, those climate and environmental risk drivers classified as significant will continue to be gradually integrated into risk management tools.

In the time horizon examined, the climate and environmental risk drivers identified in the risk driver analysis for the material risk types were predominantly classified as insignificant. With regard to business risk, climate and environmental transition risks can, under stressed assumptions, represent significant drivers irrespective of the probability of occurrence of such events and developments. In addition, it should be noted with regard to operational risks that the significance of climate and environmental transition risks is set to rise in future in light of the growing portfolio of sustainability products combined with the increase in regulatory requirements. Given the results of the risk driver analysis described above, there is currently no need to allocate capital for climate and environmental risks or to cover the risks with liquidity.

To examine the impacts of climate and environmental risks, two climate stress scenarios were also calculated in the first quarter of 2022 as part of the stress tests. Their impacts were initially calculated for selected indicators as of 31 December 2021. The scenarios included both a delayed economic transition and a flood scenario. Further key indicators were added as part of another calculation as of 30 September 2022. This was based on new scenarios (delayed transition and drought and aridity). In a further step, dynamic portfolios will be used for the analysis next year so as to take account of any strategic and customer-specific adjustment processes.

With regard to the inclusion of sustainability aspects in DekaBank's lending process, the ESG scorecards developed in the previous year in line with the EBA Guidelines on loan origination and monitoring were used in the course of lending decisions (for setting, increasing and extending limits). The ESG scorecards were rolled out to the entire loan portfolio by the end of 2022.

It should be noted that the instruments used to identify and measure climate and environmental risks are based on the reporting date in question. The instruments are therefore continuously refined (e.g. extension of the period covered by the risk driver analysis) to take ample account of the dynamics of advancing climate change and accompanying political initiatives. For monitoring purposes, suitable risk ratios (key risk indicators) are to be chosen in future that enable regular assessment of the potential impact of climate and environmental risks.

In the wake of the ECB guide to internal models published back in November 2018, more supervisory reviews of internal models under Pillar I of the Basel Accord (Targeted Review of Internal Models, TRIM) were conducted. The reviews aimed to reduce the variability of model results and thereby increase confidence in internal models. They affected the internal rating models for credit risk (IRBA), internal market risk models (IMA) and internal models for estimating exposure to counterparty risk (IMM). With regard to the IRB approach, suitable measures to fulfil the requirements were initiated based on the findings of the 2019 on-site audit in the fund rating module as part of the TRIM, which were all reported as completed in the first half of 2022. An on-site audit of the market risk model as part of the TRIM was conducted back in 2017, and all measures to fulfil the requirements were implemented in 2020. TRIM audits concerning counterparty risk did not affect DekaBank.

In addition, as part of the implementation of the EBA Guidelines on PD estimation, LGD estimation and treatment of defaulted exposures, further IRB reviews were carried out in 2021 and 2022 for a total of six modules in connection with the corresponding model change notifications. In the coming years, more of these reviews will be conducted until all IRB rating modules in use have been reviewed by the supervisory authority.

The potential economic impact of changes to the Credit Risk Standardised Approach (CRSA) and the Internal Ratings Based Approach (IRBA) that are currently planned as part of the finalisation of Basel III (Basel IV) continues to be monitored. The same applies to the Fundamental Review of the Trading Book (FRTB). The measures needed to meet the requirements of the new FRTB standardised approach have already been implemented. Their implementation has been followed by the required quarterly reporting to the supervisory authority. The planned introduction of the Standardised Measurement Approach (SMA) for calculating operational risk capital, which could also affect Pillar II of the Basel framework under certain circumstances, is also being monitored. The expected effects for Basel IV have been taken into account in normative capital planning.

Concept of risk appetite

Overview

The key component of the concept of risk appetite is the risk appetite statement (RAS), which provides the framework for the ICAAP and ILAAP. Within the ICAAP and ILAAP, there is a distinction between the economic and normative perspective.

The first starting point for the RAS is a description of the desired risk profile that is implied by our customer-centred business model. A Group-wide risk inventory enables the Deka Group to maintain an overview of its risk profile at all times. The risk inventory exercise is carried out on an annual basis, and at other times as required, in order to assess which risks could have a significant negative impact on its financial position (including in terms of capital adequacy, earnings or liquidity). Particular consideration is given here to risk concentrations to which the Deka Group consciously exposes itself in connection with its business model. The assessment has further implications for backing risks with capital, for the holding of liquidity, and for validation. Inclusion of the relevant companies is checked as part of the risk inventory.

The second starting point for the RAS, in addition to the risk profile, is risk capacity – the maximum amount of risk that the Deka Group can accept with respect to its available funds. Risk appetite is defined, within the scope of this risk capacity, as the overall aggregate risk for individual risk types that the Deka Group is willing to accept in order to achieve its strategic objectives and business plan. There are different measures of risk capacity and risk appetite depending on the perspective and the nature of the risks (affecting profit or liquidity).

The RAS also incorporates medium-term planning, which specifies and quantifies details of the business and risk strategy. Medium-term planning involves an integrated planning process for profits, balance sheets, funding, capital and risk for the next three budget years, with account being taken of potential adverse developments.

The concept of risk appetite also covers procedures for monitoring compliance with risk appetite. These include management instruments, regular reporting, rulebooks, controls and processes, as well as risk governance in the sense that roles and responsibilities are laid down for implementing and monitoring risk appetite. Taking risk concentrations into account, the Deka Group has thus established limits for all risks classified as material during the risk inventory and has implemented rigorous risk management.

Risk definitions, concentrations and measurement

The individual risks and risk types for the purposes of risk monitoring and risk management are derived from the annual risk inventory. Risk types considered to be material, which are backed by capital in the context of the ICAAP, include counterparty risk, market price risk, operational risk and business risk. Liquidity risk is also classified as material and is managed and monitored as part of the ILAAP. Liquidity is maintained to cover the main drivers of liquidity risk (in the sense of insolvency risk). Other risk types or risk drivers can also be included in the ICAAP or ILAAP.

The risk types relevant for the Deka Group also include investment risk, step-in risk and reputational risk. Model uncertainties and sustainability risks are regarded as relevant risks but not as standalone risk types.

A distinction is drawn between financial and non-financial risks, based on the context in which risks are incurred and/or arise. Financial risks are incurred consciously in direct connection with individual transactions in order to generate income. Non-financial risks, by contrast, are inherent in a particular business activity but are not incurred in order to achieve profit. Non-financial risks include, in particular, operational risk and business risk.

Counterparty risk

Counterparty risk is the risk of financial loss resulting from the deterioration in the creditworthiness of a borrower, issuer or other counterparty (migration risk) or when the counterparty is unable to fulfil its contractually agreed obligations, or unable to fulfil them in a timely manner (default risk). Counterparty risk also includes the risk of changes in specific provisions: the risk that a specific provision will underestimate the loss. Country risk is also included in counterparty risk. There is a distinction between country risk in the narrower and broader senses. Country risk in the narrower sense equates to transfer risk, which results not from the business partner itself, but instead is due to that partner's location abroad. Country risk in the broader sense is the risk that countries or governments will be unable to (fully) meet their contractual obligations in respect of receivables.

In terms of volume limitation, the Deka Group makes a distinction in counterparty risk between position risk, advance performance risk and potential future exposure (PFE). Position risk comprises borrower and issuer risk, as well as replacement risk and open position risk. Borrower risk is the risk that outstanding loan payment obligations to the Deka Group will not be paid or will not be paid in a timely manner. Similarly, issuer risk is the risk of losses caused by default on the part of issuers of debt or equity securities, underlyings of derivative instruments, or fund units. Replacement risk is the risk that if a business partner were to default, a replacement transaction would have to be conducted at less favourable market conditions. Open position risk (performance disruption) results if a delay occurs in the performance of a contractually agreed obligation by a business partner. Advance performance risk represents the risk that a business partner will not pay the contractually agreed consideration after advance performance has been rendered by the Deka Group. Potential future exposure (PFE) risk comprises the risk arising from potential market price fluctuations in relation to repo loan transactions, synthetic lending transactions and other derivatives transactions.

Pension risk is regarded as a sub-type of counterparty risk. It comprises potential losses from pension benefits payable that are not already covered by the provisions recognised for pensions. This also includes the counterparty risk for the plan assets. Management of this risk is not assigned to a specific business division. It is taken into account as a deduction from internal capital.

Market price risk

Market price risk describes the potential financial loss from future market price fluctuations (and from relevant valuation parameters) over a fixed time horizon and hence includes interest rate risk (including credit spread risk), currency risk and share price risk. Option risks are included in the above risks.

General interest rate risks result from changes in currency- and tenor-specific swap curves, with different fixed-rate periods having an effect as well, and from changes in cross-currency spread curves. These risks also include volatility risk in interest rate derivatives and options (cap/floor and swaptions).

Credit spread risks depend on changes in the issuer-specific premiums on the reference curves. These premiums depend primarily on the market's assessment of the creditworthiness of individual issuers or sectors. Premiums for individual issues (residual risks) are also relevant.

Share price risks are identified as risk factors via the individual shares, indices or funds and are influenced by risks from share or index volatility. The associated option risks or volatility risks are also taken into account here. Currency risks reflect changes in exchange rates.

The process for identifying and quantifying these risks in the economic perspective does not differentiate between the trading book and banking book; the same procedures are applied for all Deka Group portfolios, irrespective of the portfolio type. Market price risks relating to guarantees that the Deka Group has provided for individual investment funds are part of market price risk and are backed by capital as part of the ICAAP.

CVA risk and pension risk are regarded as sub-types of market price risk:

Credit valuation adjustments (CVAs) are valuation adjustments on derivative contracts which represent the expected loss from counterparty risk and are reflected accordingly in the result. CVA risk is the risk of a corresponding financial loss due to potential future changes in the risk factors determining the valuation adjustments. In the normative perspective, there is a regulatory requirement to report separate RWAs for CVAs. In the economic perspective, CVA risk is quantified as an integral part of market price risk.

Pension risk comprises potential losses from pension benefits payable or similar commitments due that are not already covered by the provisions recognised for pensions or similar commitments. This also includes market price risks in the sense of an additional shortfall in cover on the risk horizon. Management of this risk is not assigned to a specific business division. It is taken into account as a deduction from internal capital.

Liquidity risk

In terms of liquidity risk, the Deka Group makes a distinction between insolvency risk (liquidity risk in the stricter sense), liquidity maturity transformation risk and market liquidity risk.

Insolvency risk describes the risk that the Deka Group will be unable to meet its current and future payment obligations in a timely manner because liabilities exceed the available liquid funds.

Liquidity maturity transformation risk describes the risk that arises from a change in DekaBank's own refinancing curve in the event of imbalances in the liquidity-related maturity structure.

Market liquidity risk is understood as the risk that transactions cannot be settled or closed out, or can only be settled or closed out at a loss, due to inadequate market depth or because of market disruptions.

Operational risk

Operational risk means the risk of loss caused by the inadequacy or failure of internal processes, people and systems or by external events, including legal risks. In accordance with its overarching definition in the Deka Group's non-financial risk taxonomy, it can be broken down into the following sub-types: compliance risk, service provider risk in the narrower sense, information and communication technology and security risk, personnel risk, project risk in the narrower sense, process risk and legal risk.

Business risk

Business risk concerns unexpected adverse variances from plan that result from changes in the behaviour of customers or sales partners, or from market conditions, legal requirements or competitive conditions and for which the causes are not already covered by other risk types.

Investment risk
The Deka Group defines investment risk as the risk of financial loss due to impairment of the portfolio of equity investments, insofar as they are not consolidated for accounting purposes and therefore already included under other types of risk. Internal capital is set aside for investment risk. Currently, however, this risk has only a minor influence on the Group’s risk-bearing capacity.

Step-in risk
Step-in risk describes the risk of providing support, for reputational reasons or due to other considerations in connection with a stress scenario, to affiliated companies that are not fully consolidated for regulatory or accounting purposes and to business partners, despite the absence of a contractual obligation to do so.

The identification and evaluation process as part of the 2022 risk inventory showed no current need for the Deka Group to maintain capital or liquidity to cover step-in risk given the mitigation measures taken or the lack of plausibility.

Reputational risk
Reputational risk is defined as the risk that the standing of the Deka Group will be damaged. Every business activity that harms the credibility of the Deka Group’s commitment to its stakeholders (primarily shareholders, sales partners, customers, employees, financial and real estate markets and the public) can result in reduced profitability, capital or liquidity.

Reputational risks may arise directly or as a result of events connected to other risk types and manifest themselves through their effects on business and liquidity risk.

Model risk/model uncertainty
Risks arising from the deliberate selection, specification, calibration or use of models, or from the choice of parameters, are described as model uncertainty. In part, these risks are inherent in the models and thus unavoidable, as it is not normally possible for the chosen model to capture the situation with complete accuracy. Model uncertainties can lead to unforeseen financial losses and shortcomings in the ICAAP or ILAAP, and thus to flawed decisions or other damage. These risks do not represent a standalone risk type for the Deka Group but are examined in conjunction with the individual risk and valuation models.

Model risks in the narrower sense are distinguished from model uncertainties. They are defined as part of process risk, a sub-type of operational risk, and arise from errors in the implementation, use or application of valuation or risk models, or from the incorrect choice of parameters for these models.

Model uncertainties combined with model risks in the narrower sense (i.e. the totality of potential negative effects resulting from the use of models) is also summarised under the term model risk in the broader sense.

In the economic perspective, annual capital and risk planning uses a buffer when setting risk appetite in order to take account of uncertainties in the modelling of risks affecting profit and loss. In the context of liquidity risk, model uncertainties are mitigated using the liquidity buffer. In the normative perspective, model uncertainties from valuation models are deducted from Common Equity Tier 1 capital as part of the additional valuation adjustments under Article 34 CRR.

Sustainability risk

Sustainability risk describes the danger that business activities with climate, environmental, social or corporate governance implications lead to sustainability-related developments or events that result either directly via the Deka Group's own business operations, or indirectly via customers and business partners, in a deterioration in capital or liquidity levels. Sustainability risks in connection with the climate and environment are also referred to as climate and environmental risks and include physical, transition and other climate and environmental risks. Physical climate and environmental risks comprise the impacts of individual extreme weather events and their consequences (acute) as well as long-term changes in climatic and environmental conditions (chronic), but also natural disasters not caused by the climate. Climate and environmental transition risks comprise impacts that may occur directly or indirectly as a result of the transition to a lower-emission, more environmentally sustainable economy. Other climate and environmental risks comprise impacts of climate- and environment-related events and developments that are not attributable to physical climate and environmental or transition risks. They include, for example, the loss of biodiversity or the spread of tropical diseases.

Sustainability risks act as drivers of relevant risk types that are material enough to warrant special attention. Sustainability risks are always viewed in the context of the relevant risk types rather than treated as a standalone risk type.

Procedural measures specific to individual business activities are used to manage sustainability risks. Where sustainability risk arises in connection with counterparty risk, the Deka Group manages this risk by means of a blacklist created as part of the credit risk strategy as well as by means of segment-specific minimum standards and ESG scorecards. ESG scorecards are used as part of the lending process for the targeted analysis of sustainability aspects. The analysis uses an ESG traffic light system, which classifies the level of sustainability risk for financing and borrowers from low to high. Business classified as high-risk is generally declined in accordance with the blacklist for the credit risk strategy. Existing financing or borrowers with high sustainability risks according to the ESG scorecard are identified as part of the early warning process. The next steps for this sort of business are decided case by case. A sustainability filter is also applied in the context of counterparty and market price risks (exclusion criteria for proprietary investments developed with the help of a sustainability rating agency). The Deka Group combats potential sustainability risks arising in connection with business risk through measures such as regular dialogue with sales partners to identify and meet customer requirements, the use of exclusion criteria (e.g. controversial weapons or coal) and special investment universes for sustainably managed funds.

Risk concentrations

Risk concentrations describe those risks arising primarily from an uneven distribution of business partner relationships or an uneven sensitivity of the portfolio in relation to major risk factors which could subsequently lead to significant economic losses for the Deka Group.

Risk concentrations can occur both within the major risk types (intra-risk concentrations) as well as between different material types of risk (inter-risk concentrations). These are a focus of risk management and monitoring in terms of tools looking at specific types of risk as well as those that apply across risk types.

Risk profile of the Deka Group and its business divisions

To successfully realise its mission as a *Wertpapierhaus*, the Deka Group draws on the advantages of combining asset management and banking business. It focuses on services that are in demand from savings banks and their customers, that sustainably add value to the Deka Group, that involve limited risks and that match Deka's expertise. As part of the business strategy defined by the Board of Management and the risk strategy consistent with it, risk positions are entered into primarily in connection with customer transactions or associated services and products or when they serve risk management purposes. In addition, risks are incurred if they are conducive to liquidity management or if they are required to realise synergies along the Deka Group's value chain. Business activities in new products or new markets, and the establishment or acquisition of new business units, are undertaken only after a thorough risk evaluation has been performed.

These activities give rise principally to counterparty, market price, business and operational risks, as well as to liquidity risk (which does not directly affect the income statement). The Deka Group also consciously exposes itself to risk concentrations in the context of its business model. These include, for example, the regional focus on Germany, which is a result of the focus on German savings banks and their customers, and the concentration on certain groups of counterparties, for example in the savings banks segment or public sector, and on counterparties in the financial market. With respect to market price risk, the Deka Group's business model focuses primarily on spread risks. In addition, (general) interest rate risks from guarantee products make a significant contribution to the Deka Group's market price risk. Large positions in collateralised derivatives give rise to concentrations of liquidity risk, as high sensitivity to specific market movements can trigger liquidity outflows due to the provision of collateral. The Deka Group also makes use across the business divisions of global custodians and central counterparties, which involves a conscious exposure to concentrations, not least of counterparty risk. To conduct its business, the Group mainly uses established products and markets with adequate market liquidity and market depth due to their international acceptance. No business is conducted involving physical delivery of precious metals and goods.

The Deka Group's business activities are organised into five business divisions. Asset Management Securities, Asset Management Real Estate, Asset Management Services, Capital Markets and Financing. In addition to these, the Treasury corporate centre also exposes itself to risk in the course of its activities. In principle, this structure has a diversifying effect on business activities and the resulting risks for the overall portfolio. However, it is also associated in part with the pooling of certain business activities, resulting in different risk profiles in the individual divisions.

Asset Management Securities business division

In combining securities fund business with the provision of high-quality asset management solutions for every market environment, this business division principally generates operational and business risks for the Deka Group. These may be exacerbated by reputational risks in connection with the "Deka" brand or by the fast pace of sustainability-driven developments in customer behaviour and regulatory affairs. Counterparty and market price risks arise particularly in relation to the guarantee funds and pension products managed by the business division. These are fund-based guarantee products, where either the investment management companies themselves issue guarantees (with a letter of comfort from DekaBank for these liabilities) or DekaBank makes use of the investment management companies' funds for its own guarantee products (Riester products). The division also faces investment risks.

Asset Management Real Estate business division

As with Asset Management Securities, the principal operational and business risks in this business division arise from the provision of fund products related to real estate or (real estate) financing. They may be exacerbated by reputational and sustainability risks in view of customer expectations and tighter regulatory requirements. To a small extent, market price and counterparty risks also arise for the division from real estate funds in the Group's own investment portfolio. The division also faces investment risks.

Asset Management Services business division

This business division, too, principally generates operational and business risks for the Deka Group. These result from the provision of banking services for asset management. Counterparty and market price risks also arise to a small degree from the operations of S Broker AG & Co. KG, which is included in this division. The counterparty risks primarily result from S Broker's proprietary investments. The division also faces investment risks.

Capital Markets business division

Customer-led business activity in the Capital Markets business division gives rise in particular to counterparty and market price risks. These may be exacerbated by sustainability risks, for instance through impairments on investments in industries affected by climate and environmental risks, but also by changes in customer preferences. Counterparty risks arise primarily from currency, securities lending, securities repurchase and derivatives transactions and from trading in financial instruments in all asset classes with financial institutions, savings banks, funds and companies. Proprietary trading not directly linked to customers takes place only for the purposes of managing risks from the customer business or for overall risk management purposes. In relation to the division's business activities, credit spread risks, share price risks, general interest rate risks and to a lesser extent also currency risks, including associated risks arising from options, arise in relation to the market price risk. Whenever economically justified, risks are covered using hedging instruments. The rules for recognising hedging relationships in the balance sheet do not always correspond with the methods used for internal bank management purposes. It is therefore possible that differences may arise between the economic and accounting hedging relationships. Operational risks also arise. As the central securities and collateral platform in the association, the Deka Group generates economies of scale and scope. This results especially in concentrations with increased gross risk in relation to individual business partners, primarily in relation to the world's largest banks and to central counterparties. Risk concentrations also exist in relation to individual Landesbanks as association partners. The collateral in securities lending transactions can also give rise to risk concentrations in collateral, which are limited by the rules in the Collateral Policy.

Financing business division

The business activities of the Financing business division (essentially savings bank financing, financing of the public sector, infrastructure and transport financing, ECA-backed financing and real estate financing) create corresponding focal points, primarily in counterparty risk, which may be exacerbated by sustainability risk, resulting for example in a deterioration of borrowers' creditworthiness due to increased climate and environmental risks or in a loss in the value of collateral. In accordance with the business model, this also leads to regional concentrations of counterparty risk in Germany and western Europe, as well sector-based risk concentrations in relation to financing of real estate, infrastructure, savings banks and the public sector. The division also faces investment risks.

Treasury

The Treasury corporate centre's various functions, especially management of the liquidity management portfolio (consisting of Strategic Investments, the liquidity buffer and other liquid assets) give rise to counterparty and market price risks. The securities that constitute the Strategic Investments are currently focused on investments in investment-grade bonds, including from public sector issuers, financial services providers and corporates. In light of the targets for the liquidity buffer, investment here concentrates on investments in bonds issued by German federal states, German development banks, German run-off institutions, German covered bonds (*Pfandbriefe*), supranational institutions and investment-grade corporate bonds. Given the strategic focus, risk is concentrated on the public sector and domestic counterparties. Market price risk chiefly involves spread risks, which are closely monitored and reduced if required through disposals or credit derivatives. General interest rate risks, currency risks and share price risks also arise to a limited extent. Operational risks also exist to a small degree.

Organisation of risk management and control

Board of Management and Administrative Board

The Board of Management is responsible for the development, promotion and integration of an appropriate risk culture within the Deka Group and is clearly committed to risk-appropriate behaviour. It is also responsible for establishing, enhancing and monitoring the effectiveness of the risk management system. Within the risk management organisation, the Board of Management makes decisions on the Deka Group's strategy, including the nature and implementation of the risk appetite concept. It defines the amount of overall risk permitted at Group level and sets the capital allocations for the different types of risk and the business divisions, including the Treasury corporate centre. The Board also sets the thresholds used for internal management purposes for the Common Equity Tier 1 capital ratio, the Tier 1 capital ratio, the total capital ratio, the leverage ratio (LR), the Minimum Requirement for Own Funds and Eligible Liabilities (MREL), the subordinated MREL requirements, the utilisation of the large exposure limit, the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). It thereby takes decisions, in particular, on the governance framework for the internal processes used to assess the adequacy of internal capital and liquidity (ICAAP and ILAAP) and is responsible for implementing these processes. This includes setting limits at business division level for the individual risk types.

The Administrative Board, together with the relevant committees it has established – the Risk and Credit Committee and the Audit Committee – is responsible for monitoring the Deka Group's risk management system. Prior to every meeting of the Administrative Board, the Risk and Credit Committee meets to discuss in detail matters impacting the Group's risk exposure and risk management. It also reviews the Group's strategic direction with the Board of Management. The Risk and Credit Committee also acts as a credit approval body within the scope of the applicable authorisation guideline. The Audit Committee is an oversight body that concerns itself with the results of internal and external audits. It thereby contributes to ensuring the appropriateness and effectiveness of the Deka Group's monitoring, control and risk management arrangements.

Management committees

The Board of Management is supported in its management role by various management committees.

The role of the Risk Management Committee (*Managementkomitee Risiko* – MKR) is to address and analyse circumstances, developments and methodological issues that could have a material impact on the Deka Group's current or future total risk profile and/or profitability.

It helps the Board of Management to set the framework for managing capital and liquidity adequacy. The committee thus makes an important contribution to promoting a Group-wide risk culture. The meetings of the MKR are generally divided into the following parts. In part A, the risk round table on non-financial risks (NFR), the discussion centres on current NFR-related risk topics for each unit or business division. This usually takes place four times a year. In part B, the risk round table on financial risks, methods and models and current risk reporting, geopolitical risks and the economic environment, along with the regular reports from sub-committees in the context of financial risks, are presented to the committee and discussed. Part B, which usually takes place once a month, also discusses the handling of model risks. The permanent voting members of the MKR include the member of the Board of Management responsible for risk control and the head of the Risk Control department and, depending on responsibilities and the part of the meeting concerned, the heads of Credit Risk Management, Finance and Risk Control Capital Market Funds, the COOs for the Asset Management Securities and Asset Management Real Estate business divisions, the COO for the banking divisions & depositary as well as the heads of Compliance, Legal, IT, Business Services, Treasury, Corporate Office & Communications, Strategy & HR, Sales/Product Management & Marketing, Digital Multichannel Management, Institutional Customer Sales, Organisational Development, Information Security Management, Capital Markets, Financing and Macro Research. The MKR is supported in this function by sub-committees, which each have individual core duties.

The Management Committee for Assets and Liabilities (*Managementkomitee Aktiv-Passiv* – MKAP) primarily drafts resolutions on matters relating to the management of interest rates, currency, liquidity and refinancing, to fund-based guarantee products (combined in part G of the MKAP) and to the capital and balance sheet structure. It assists the Board of Management with the operational management of capital and liquidity adequacy. Measures to be taken in the event of a liquidity crisis are also confirmed in the course of the MKAP's regular review. Meetings of the MKAP are usually held once a month. Those of part G of the MKAP take place every two months. The MKAP is supported by various sub-committees, including a Pricing Committee. The permanent voting members of the MKAP comprise the Board of Management members responsible for Treasury, Finance, Risk Control and Capital Markets and the heads of the Treasury, Finance and Risk Control corporate centres as well as and the head of the Capital Markets business division.

Sub-committees of the Risk Management Committee

The Stress Testing Committee supports the Board of Management in relation to the overall appraisal of the regular macroeconomic stress tests (covering all risk types) and risk type-specific stress tests. Stress tests form an integral part of the Deka Group's risk management. The duties of the Stress Testing Committee include in particular the assessment and appraisal of stress test results as well as general responsibility for setting stress test scenarios and processes.

The job of the Models Committee is to regularly analyse and address issues relating to DekaBank's valuation and risk models (in both the economic and normative perspective). This involves regular examination of their adequacy using model monitoring and assessment of current trends and validation issues. In this function, the Models Committee takes decisions within the scope of the authority granted to it or prepares decisions to be taken by the full Board of Management with the involvement of the MKR. The committee thus makes an important contribution to ensuring overarching consistency in the models employed. Furthermore, the Models Committee represents the central body for assessing model risks, with the aim of ensuring appropriate treatment of model risk.

See also: Counterparty risk: page 75 ff.

Additional committees that are relevant to counterparty risk management include the Country Risk Committee, which assesses and monitors country risk, the Monitoring Committee, which monitors and manages non-performing loans and loans on the watch list, the Risk Provisioning Committee, which performs regular analysis and examination of matters relating to the planning, monitoring and management of risk provisions as well as monitoring and managing restructuring and liquidation cases, and the Rating Committee for analysing and discussing the internal rating procedures (see counterparty risk).

The duties of the Risk Talk are to regularly analyse, discuss and make decisions regarding matters in connection with the risk management and monitoring processes in the Capital Markets business division's operational processes. The emphasis is on the assessment, in relation to market or counterparty risks, of matters that could significantly influence the risk profile and/or profitability of the Capital Markets business division.

Business divisions and corporate centres

All business divisions and the Treasury corporate centre operate within the scope of the strategic requirements. In addition, they operate within the framework set by the Board of Management on the basis of recommendations from the MKR and MKAP. On behalf of the Board of Management, the Treasury corporate centre also manages group liquidity, Deka Group refinancing across all maturities, the liquidity management portfolio, market price risks in the banking book, counterparty risks in its own banking book and the equity of the Deka Group within these limits. The Equity investments department in the Strategy & HR corporate centre has overall responsibility for the management of equity investments involving investment risk. This also includes monitoring in respect of compliance and other risks and liaising in this context with the relevant functions in the second line of defence.

The Risk Control and Finance corporate centres have particular responsibility for developing a standardised and self-contained system to quantify and monitor all material risks associated with the Deka Group's business activities. The two corporate centres each concentrate on different tasks as part of this work. Risk measurement procedures evolve on an ongoing basis in line with economic and regulatory requirements.

The Risk Control corporate centre, which is independent of the business divisions, is primarily responsible for the economic perspective and, across both perspectives, for coordinating and choosing the parameters for macroeconomic stress testing. It also monitors compliance with the limits approved by authorised decision makers, and immediately reports any limit breaches to them.

The Finance corporate centre is responsible for the normative perspective and also monitors compliance with the thresholds set for the regulatory ratios.

The Credit Risk Management corporate centre is primarily responsible for providing a second opinion independent of front office operations, setting limits for trading and capital market counterparties, and analysing, preparing and/or approving ratings (except for transaction ratings in the case of new business in the Financing business division). Credit Risk Management is also responsible for ongoing management of exposures for certain financing, verifying and approving collateral, early-stage risk identification (acting as the administrative office), risk monitoring and the management of non-performing and troubled loans (work out).

On behalf of the Deka Group, the Compliance corporate centre covers the regulatory functions of the Compliance Officer as set out in the German Banking Act (*Kreditwesengesetz* – KWG), the German Securities Trading Act (*Wertpapierhandelsgesetz* – WpHG) and the German Investment Code (*Kapitalanlagegesetzbuch* – KAGB). It also covers those functions assigned to the Money Laundering Officer under the German Money Laundering Act (*Geldwäschegesetz* – GwG) and to the "Central Office" under the KWG and ensures that there is the possibility to submit anonymous tip-offs to an external ombudsman. In addition to this, the Compliance corporate centre performs the functions of the officer for the safeguarding of client assets. Alongside the provision of training and advice on relevant issues, the corporate centre assesses the controls and procedures implemented by the operational units to determine whether they are appropriate and effective, with the aim of minimising compliance risk for the Deka Group.

The Information Security Management department, which reports directly to the Board of Management, performs the function of the Information Security Officer, Business Continuity Management Officer, Outsourcing Officer and operational Data Protection.

The Internal Audit corporate centre is an independent unit that supports the Board of Management and other management levels in their control and monitoring functions. It examines and assesses all activities and processes on the basis of an annual audit plan that is drawn up with a risk-based approach, using a scoring model, and then approved by the Board of Management. One of the unit's most important tasks is to evaluate the business organisation with a focus on whether the internal control system and, in particular, risk management and monitoring are suitable and appropriate. Internal Audit also audits compliance with legal, regulatory and internal bank requirements. The Administrative Board is responsible for monitoring the internal audit system.

In addition, in all business divisions and corporate centres, the respective heads of department are responsible for ensuring that operational risks are identified, measured and managed on a decentralised basis. There are specialist functions for monitoring selected non-financial risks in the Compliance, Information Security Management, Strategy & HR, Organisational Development, Legal and Finance units. The Risk Control corporate centre is responsible for key components of operational risk control, such as refining methodologies and reporting.

Organisational structure of risk management in the Deka Group *(Fig. 15)*

		Counterparty risk	Market price risk	Operational risk	Business risk	Investment risk	Step-in risk	Liquidity risk
Administrative Board								
Risk and Credit Committee	- Overview of current risk situation/risk management system - Discussion of strategic direction with Board of Management - Credit approval body	●	●	●	●	●	●	●
Audit Committee	- Reviews results of internal and external audits	●	●	●	●	●	●	●
Board of Management	- Determines strategic direction - Responsible for Group-wide risk management system - Defines risk appetite in the economic perspective and thresholds for regulatory ratios - Allocates risk capital to risk types and business divisions, incl. setting the limits for individual risk types at business division level	●	●	●	●	●	●	●
Management Committee for Risk (Management-komitee Risiko – MKR)	- Assists the Board of Management in matters relating to material existing and prospective risks and in defining a framework for management in the context of the ICAAP and ILAAP - Supports the Board of Management with the evaluation of issues that have a significant effect on the overall risk profile - Prepares draft resolutions for the Board of Management and makes decisions within the scope of the authority granted to it - Supplemented by various sub-committees	●	●	●	●	●	●	●
Stress Testing Committee	- Assesses and appraises stress test results - Specifies stress testing scenarios and processes - Reports and makes recommendations for action to the Board of Management	●	●	●	●	●		●
Models Committee	- Assesses current trends and validation issues with regard to valuation and risk models - Central body for assessing model risks	●	●	●	●	●	●	●
Country Risk Committee	- Assesses country risks - Assesses and further develops the methodology for limiting country risks - Approves/sets country limits	●						
Monitoring Committee	- Defines, assesses and further develops the early warning indicators and classification criteria - Monitors and manages non-performing loans and loans on the watch list	●						
Ratings Committee	- Enhances and maintains internal rating procedures and rating processes - Responsible for approving policies and regulations relating to the internal rating procedures	●						
Risk Provisioning Committee	- Plans, monitors and manages risk provisions - Monitors and manages restructuring and liquidation cases	●						
Risk Talk	- Supports the MKR/Board of Management in connection with risk management and monitoring processes in the Capital Markets business division's operational processes - Emphasis on market price and counterparty risk	●	●					
Management Committee for Assets and Liabilities (Management-komitee Aktiv-Passiv – MKAP)	- Supports the Board of Management in matters relating to interest rate and FX management, liquidity and funding management, fund-based guarantee products (combined in part G of the MKAP) and the capital and balance sheet structure - Supports the Board of Management with operational ICAAP and ILAAP management - Evaluates the measures planned for liquidity crises - Prepares draft resolutions for the Board of Management - Has various sub-committees (including the Pricing Committee)	●	●	●	●	●	●	●
AM Securities business division	- Conducts transactions in line with strategic guidelines	●	●		●	●		●
AM Real Estate division	- Conducts transactions in line with strategic guidelines	●	●		●	●		●
AM Services business division	- Conducts transactions in line with strategic guidelines	●	●		●	●		●

		Counterparty risk	Market price risk	Operational risk	Business risk	Investment risk	Step-in risk	Liquidity risk
Capital Markets business division	- Conducts transactions in line with strategic guidelines	●	●		●			●
	- Makes decisions within the guidelines proposed by the MKAP and established by the Board of Management and sets limits within the division		●					●
Financing business division	- Conducts transactions in line with strategic guidelines	●			●	●		●
Treasury (Corporate Centre)	- Conducts transactions in line with strategic guidelines	●	●					●
	- Makes decisions within the guidelines proposed by the MKAP and established by the Board of Management and sets limits within the corporate centre - Manages market price risks in the banking book, manages the liquidity and refinancing of the Deka Group		●					●
Risk Control (Corporate Centre)	- Develops and updates system to quantify, analyse and monitor risks (economic perspective and both perspectives for the purposes of stress testing) - Reports to Board of Management and Administrative Board - Determines/monitors risk-bearing capacity - Monitors approved limits - Responsible for general controlling of operational risks	●	●	●	●	●	●	●
Finance (Corporate Centre)	- Develops and updates system to quantify, analyse and monitor risks (normative perspective based on actual situation) - Reports to Board of Management and Administrative Board - Determines regulatory ratios - Monitors thresholds in the normative perspective - Monitors selected non-financial risks as a specialist function	●	●	●	●	●	●	●
Credit Risk Management (Corporate Centre)	- Market-independent second recommendation - Sets limits for trading and capital market counterparties - Analyses, prepares and approves ratings - Ongoing portfolio management for certain financing - Administrative office for early risk identification - Management of troubled and non-performing loans (work out) - Loan administration - Responsible for lending-related processes	●						
Compliance (Corporate Centre)	- Functions as Compliance Officer as set out in the German Banking Act (KWG), German Securities Trading Act (WpHG) and German Investment Code (KAGB), as Money Laundering Officer pursuant to the German Money Laundering Act (GwG) and as Central Office in line with the requirements of the KWG - Party responsible for processes under section 24c KWG - Independent body under sections 70, 85 KAGB - Single Officer (Officer for safeguarding of client assets) under section 81 (5) WpHG - Monitors selected non-financial risks as a specialist function			●				
Information Security Management (ISM) (reports directly to the Board of Management)	- ISM Officer, BCM Officer, Outsourcing Officer and operational Data Protection - Monitors selected non-financial risks as a specialist function			●			●	
Strategy & HR (Corporate Centre)	- Manages equity investment portfolio - Monitors selected non-financial risks as a specialist function			●		●	●	
Organisational Development (Corporate Centre)	- Monitors selected non-financial risks as a specialist function			●				
Legal (Corporate Centre)	- Monitors selected non-financial risks as a specialist function			●				
Internal Audit (Corporate Centre)	- Audits and evaluates all activities/processes (especially risk management system)	●	●	●	●	●	●	●
All business divisions and Corporate Centres	- Identifies, measures and manages operational risks on a decentralised basis			●				

Three Lines of Defence model

Risk management involves active management of the Deka Group's risk position. The distribution of risk-related activities and associated controls across several organisational units requires proper assignment and delineation of the respective responsibilities and functions. Ever greater significance is attributed to an effective and properly functioning risk management system across all organisational units, which has no control gaps, conflicts of interest or redundancy and takes into consideration the risk strategy of the Deka Group. This also promotes clear-cut governance.

The "Three Lines of Defence" model practised by the Deka Group is designed to ensure compliance with and verification of the risk framework stipulated by the risk strategy, including the regular review of ICAAP and ILAAP. The operational business units responsible for exposures are – as the first line of defence – responsible for identifying, assessing and managing the financial risks involved in any business conducted. This also includes transactions to minimise total risk at Group level in day-to-day operations. In terms of the non-financial risks that are inherent in the general business activities but not incurred in direct connection with individual transactions, each unit should be treated as part of the first line of defence. The controls forming the first line of defence are supplemented and enhanced by the independent downstream organisational units that carry out control functions as part of the second line of defence (e.g. the Risk Control, Credit Risk Management and Compliance corporate centres). These units monitor compliance with the requirements of corporate policy independently of front office and trading operations. For financial risks, the need for an independent monitoring function results from the conflict between responsibility for earnings and responsibility for risks. Translated to non-financial risks, it is therefore necessary to create a specialist function for at least those areas of risk in which the first line of defence can be assumed to have an incentive to accept higher risks with the goal of minimising costs. In addition, an overarching function defines methodological standards that ensure the risks are assessed in a comparable way, reported consistently and taken fully into account in the capital adequacy assessment. The third line of defence is the Deka Group's Internal Audit department, which also exercises its functions independently.

It is ensured that the requisite personnel resources are available to carry out the control functions, both in terms of the staff capacity needed to assess and monitor risks and in terms of the sufficient capability of the staff concerned. The systems and equipment provided for all control functions ensure that the ongoing processing, management and monitoring requirements arising from the nature and scope of the business carried out are met.

Accounting-related internal control and risk management system

The Board of Management of the Deka Group has overall responsibility for the internal control and risk management system. The system is based on a Group-wide organisational and control structure. The Finance corporate centre is responsible for preparing and coordinating monthly, quarterly and annual financial statements. The units involved in the accounting process are appropriately staffed, in terms of both the number of personnel and their qualifications. Furthermore, a regular and cross-divisional exchange of information between the units makes an important contribution to minimising the risks associated with the preparation of financial statements.

In principle, risks exist in the accounting process as a result, for example, of inconsistent application of reporting and accounting standards, incorrect recognition of business transactions, and due to malfunctions and errors in the IT systems used for accounting purposes.

The Deka Group's internal control system ensures proper accounting in accordance with applicable statutory and legal provisions. Its key features are the rigorous integration of control activities and procedures into processes, in particular by applying the dual control principle as well as risk-oriented segregation of duties in corporate centres. To this end, DekaBank performs automated routine checks and, when required, manual control and reconciliation procedures. The implementation of these activities and the procedures to be followed are documented in specialist and implementation plans.

Additional checks at DekaBank – for example in order to substantiate balance sheet items – are carried out at an aggregated level by "sub-position managers". These employees, who have in-depth product knowledge, are also responsible for regularly calculating results.

The accounting recognition of business transactions is governed centrally by a Group accounting policy. This policy describes key accounting requirements and documents the standard accounting processes that apply throughout the Group. This ensures, amongst other things, that the same business transaction is accounted for uniformly in different Deka Group units and companies in compliance with the applicable accounting standards.

Specific work instructions are used to implement Group policy at operational level in individual specialist departments. These instructions also describe the control mechanisms to be followed. Guidelines and authorisation procedures have been developed for the central systems that generate accounting information as part of the preparation of financial statements. Compliance with these guidelines and concepts is regularly monitored by Internal Audit.

The Deka Group mainly uses standard software for accounting. The systems are safeguarded against unauthorised access by external parties and are comprehensively backed-up to protect against data loss. The internal control system is regularly reviewed by Internal Audit.

Framework and tools for managing capital adequacy

The Deka Group has defined risk capacity and risk appetite as follows, depending on the perspective.

In the economic perspective, the risk capacity for profit-affecting risks is set in the course of the risk-bearing capacity analysis, while taking due account of risk concentration. It represents the upper limit of acceptable risk and corresponds to the Deka Group's total internal capital. The risk appetite for profit-affecting risks is defined in the economic perspective as part of the risk-bearing capacity analysis as the allocated risk capital (allocation) for the total risk at Group level. The maximum permissible risk appetite is equal to risk capacity less a management buffer.

In the normative perspective, thresholds are set that take into account the regulatory requirements. It is important that the chosen thresholds provide sufficient notice to allow for the preparation and initiation of management measures. Escalation and information processes are triggered for governance purposes when individual thresholds are hit. The thresholds are also reviewed and adjusted as necessary as part of an annual revision process. The maximum level of risk corresponds to the red threshold for the Common Equity Tier 1 capital ratio used for internal management purposes. In the current situation, this is based on the overall capital requirements (OCR) and the Pillar 2 Guidance (P2G) as part of the SREP process. For internal management purposes, there are also red thresholds as of the end of 2022 for the Tier 1 capital ratio, the total capital ratio, the leverage ratio, the RWA- and LRE-based MREL ratios, the RWA- and LRE-based subordinated MREL requirements and utilisation of the large exposure limit.

In the normative perspective, the level of risk that the Deka Group is willing to accept in relation to profit-affecting risks is the amber threshold for the Common Equity Tier 1 capital ratio used for internal management purposes, which is comprised of the overall capital requirements (OCR), the Pillar 2 Guidance (P2G) and a management buffer. For internal management purposes, there are also amber thresholds for the Tier 1 capital ratio, the total capital ratio, the leverage ratio, the RWA- and LRE-based MREL ratios, the RWA- and LRE-based subordinated MREL requirements and utilisation of the large exposure limit. The management buffer has been determined taking into account the ECB guide to the ICAAP and is essentially based on the results of the annual risk inventory and strategic considerations as to how to respond flexibly to potential business opportunities without jeopardising capital adequacy.

In order to take account of the particular features of non-financial risks, which are quantified as sub-types of operational risk, qualitative risk tolerance rules are also defined for these risks in addition to the quantitative risk appetite relating to the overall risk position. This also applies to reputational risk and sustainability risk.

See also: Individual risk types: page 75 ff.

The Deka Group makes use of a variety of tools to manage the risks and risk concentrations resulting from its business activities and thereby ensure capital adequacy. In the course of the ICAAP, the Deka Group distinguishes here between tools that apply to all risk types at the level of strategic requirements and risk-specific tools for operational management, which are described for the economic perspective in the sections covering the individual risk types. Alongside the risk inventory, the tools used by the Deka Group for overall management and monitoring of the risks mainly comprise risk and capital planning, the economic perspective in the current situation with the monthly risk-bearing capacity and capital allocation, the normative perspective in the current situation with adherence to regulatory ratios, and macroeconomic stress testing, which covers both the economic and normative perspectives. Key performance indicators are integrated into both the recovery plan and the remuneration system.

Risk and capital planning

Medium-term planning involves an integrated planning process for profits, balance sheets, funding, capital and risk for the next three budget years, with account being taken of adverse developments. For profit-affecting risks, risk and capital planning in the economic perspective calculates risk-bearing capacity for the next three years. Based on the planned business activities and the risks associated with them, and taking into account the available risk capacity in this perspective, the Board of Management sets the risk appetite for operational activities. In accordance with the planning assumptions, certain items cannot be taken into account. Based on the risk appetite, the Board of Management also allocates capital to the individual risk types and business divisions and to Treasury. This process also allows potential risk concentrations to be effectively addressed at an early stage. Any adjustments needed during the year are adopted by a resolution of the Board of Management.

The regulatory ratios (Common Equity Tier 1 capital ratio, Tier 1 capital ratio, total capital ratio, leverage ratio, the RWA- and LRE-based MREL ratios and the RWA- and LRE-based subordinated MREL requirements) are determined for each year as part of the normative risk and capital planning.

The Common Equity Tier 1 capital ratio should exceed the target ratio or at least show medium to long-term adherence to the strategic target ratio. The strategic target ratio is determined based on the supervisory requirements (OCR and P2G) plus a strategic premium and is set annually as part of the planning work by the Board of Management. The lower limit is the amber threshold used for internal management purposes for the relevant year. This is calculated based on the OCR and P2G expected to apply in the relevant year plus a management buffer.

In addition to planning based on expected economic developments (baseline plan), appropriate scenarios are used to assess whether the regulatory ratios can be adhered to even under adverse circumstances within the planning horizon. To this end, the Board of Management sets its own annual thresholds that deviate from the baseline plan.

Economic perspective (current situation): Risk-bearing capacity and capital allocation

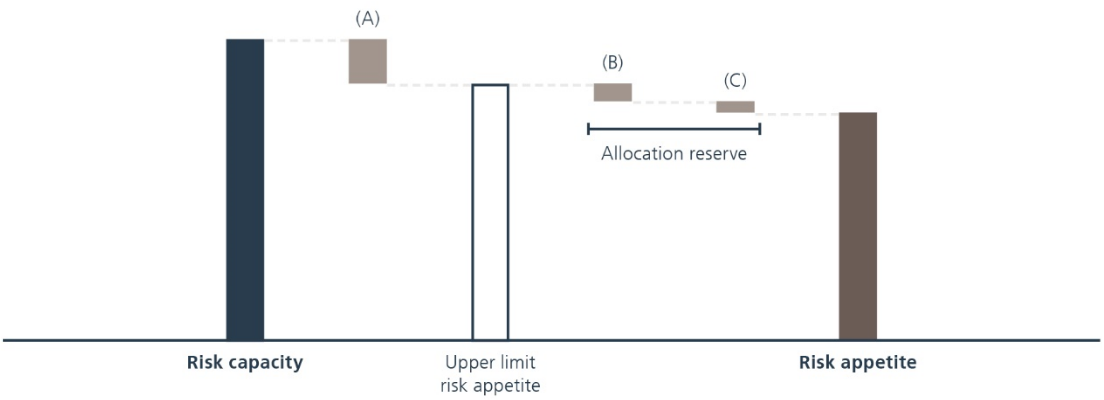
As a basic principle, internal capital is used to determine the maximum level of risk that can be incurred (impacting the income statement), taking into account risk concentrations. Risk capacity is analysed monthly. In the course of the risk-bearing capacity analysis, the risk capacity (in the form of internal capital) and the current risk level (current situation) are determined, and compliance with the guidelines and limits is monitored. The Deka Group's total risk, as examined in the risk-bearing capacity analysis, includes as a minimum all material risk types with an impact on the income statement, and is determined by adding these together. Diversification effects between individual types of risk are not taken into account as part of this process. The total risk of the Deka Group is measured as an economic capital amount that is highly likely to be sufficient to cover the losses from all material risk positions at any time within one year.

DekaBank uses the value-at-risk approach (VaR) in order to quantify individual risks on a uniform basis and to aggregate them as an indicator for overall risk. The calculation of VaR for a one-year holding period is made for internal management purposes with a confidence level of 99.9%. This level is derived from the business model with reference to an S&P rating at the level of a stand-alone credit profile of "a–".

The total risk of the Deka Group that is derived from the individual types of risk is compared to the Group's internal capital available to offset losses. Internal capital, or risk capacity, consists mainly of equity capital in accordance with IFRS and earnings components, adjusted using amounts to correct for specific capital components, such as intangible assets or risks arising from pension obligations. This internal capital is available as risk capacity – in the sense of a formal total risk limit – to safeguard risk-bearing capacity as a whole.

Based on this risk capacity, a management buffer is set whose amount must at least correspond to the buffer for model uncertainty (depending on the risk models used). Risk appetite is the primary control parameter. In addition to the Group-level analysis, risk is also limited, based on the risk appetite, by business division (including the Treasury corporate centre) and risk type (including investment risk) in the form of allocated risk capital.

Risk capacity and risk appetite *(Fig. 16)*



(A) Deduction of maximum of buffer for model uncertainty and minimum management buffer
(B) Hidden losses and reserves and own credit rating effects (if positive)
(C) Allocation reserve after deduction of (B)

The utilisation ratios for risk capacity and the risk appetite may not exceed 100%. For the utilisation of the risk appetite, an early warning threshold of 90% has also been established.

The results of the risk-bearing capacity analysis and the utilisation levels for the specified allocations are determined monthly and reported to the Board of Management. The Risk and Credit Committee and the Administrative Board are informed on a quarterly basis.

Normative perspective (current situation): Compliance with regulatory ratios

The regulatory ratios are calculated monthly or at the end of each quarter and also include forecast values. Adherence to the internal thresholds is ensured using an ongoing monitoring process, which additionally includes a monthly plan/actual comparison and a regular forecast process. The regulatory ratios are reported monthly to the Board of Management and quarterly to the Administrative Board. If the amber threshold is undercut in internal management, the Board of Management has to be informed using ad hoc reports as part of an agreed escalation process. The Board of Management decides on measures to resolve this. Unless decided otherwise by the Board of Management, the Administrative Board is informed of the fact that the amber threshold has been undercut as part of the regular quarterly reporting process and is notified of the measures initiated. If the red threshold is undercut in internal management (i.e. if the alarm threshold for the corresponding recovery plan indicator is reached), this triggers governance measures under the integrated recovery plan.

In addition to adhering to these internal thresholds, the business divisions and Treasury corporate centre are required, within the framework of this overall plan, not to exceed the target RWAs specified in the medium-term planning as a general rule. In the event that individual business divisions or the Treasury corporate centre may conceivably exceed these targets, the affected business divisions, the Treasury corporate centre and the Finance corporate centre examine whether measures to reduce RWAs are required.

Macroeconomic stress tests (both perspectives)

Macroeconomic stress testing for all risk categories is used as an additional tool to manage capital adequacy along with the indicators for the current situation. Capital adequacy is regularly assessed by way of macroeconomic stress tests, which enable an estimate to be made of how it would be affected by extreme market developments. Macroeconomic stress tests enable action areas to be identified at an early stage as soon as crisis situations emerge.

The macroeconomic stress tests examine extraordinary but nonetheless plausible scenarios. These represent appropriate historical and hypothetical events and events relating specifically to the Deka Group’s business model and associated risk concentrations. There are also scenarios for reputational and sustainability risks. When needed, the scenarios are supplemented with relevant ad-hoc analyses. Reverse stress tests relate to specific manifestations of scenarios that would lead, in the economic perspective, to the risk capacity being reached, and in the normative perspective to a Common Equity Tier 1 capital ratio at the level of the red threshold.

The effects of the various macroeconomic stress scenarios are calculated for the economic perspective for all relevant risk and earnings figures and compared to the internal capital determined for each scenario. Similarly, in the normative perspective, the effects of the stress scenarios on regulatory own funds and RWAs, the resulting capital ratios and the leverage ratio, the RWA- and LRE-based MREL ratios, and the RWA- and LRE-based subordinated MREL requirements are calculated and compared to the regulatory requirements. Utilisation of the large exposure limit is also examined. The point in time for which the stress scenarios are calculated is generally a year in the future.

The results of the macroeconomic stress tests are usually determined quarterly, assessed by the Stress Testing Committee and reported to the Board of Management, the Risk and Credit Committee, and the Administrative Board. Selected scenarios, such as climate stress scenarios, are assessed and reported annually and focus in greater depth on specific aspects.

The regular annual review of the macroeconomic scenarios was carried out in the fourth quarter of 2022. In the light of current global economic and regulatory developments, the scenarios were updated and augmented in this process as necessary and the description and choice of parameters particularly for the hypothetical and institution-specific stress scenarios adjusted accordingly. In the Deka Group’s view, the scenarios examined continue to provide an appropriate reflection of all risks relevant to it.

Framework and tools for managing liquidity adequacy

Liquidity risk is managed and monitored as an independent risk category within the framework of the Deka Group's risk strategy. The liquidity risk strategy applies to all organisational units of the Deka Group and sets out the responsibilities for liquidity risk management and monitoring.

With the ECB's approval of the liquidity waiver for DekaBank and S-Broker, the liquidity subgroup consisting of these companies has been monitored in addition to the Deka Group since April 2020.

Liquidity risk in the narrower sense (insolvency risk) is not an immediate risk to the Group's profit that can be cushioned with equity capital. Liquidity risk management therefore forms an additional management level outside the ICAAP. Like the latter, it is based on the results of the risk inventory and integrated with the recovery plan and remuneration system. The central objective of liquidity risk management is to prevent liquidity shortfalls and thus ensure that the overall solvency of the Deka Group is guaranteed on a continuous basis. In the economic perspective, the key risk measure used in the integrated quantification, management and monitoring of liquidity risk is the relevant funding matrix (FM) defined by the Board of Management. In the normative perspective, the key risk measures for regulatory purposes are the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). The LCR is the ratio of the holdings of high-quality liquid assets (HQLA) to the total net outflows for the next 30 days, as calculated under a stress scenario. The NSFR expresses the amount of available stable funding on the liabilities side of the balance sheet in relation to the amount of assets for which stable funding is required.

For liquidity risk (insolvency risk), risk capacity is defined in the economic perspective as the amount of free liquidity that is fundamentally available. It thus corresponds to the positive liquidity balance of the FM for ordinary business operations. For liquidity risk, the Deka Group has defined its risk appetite in the economic perspective such that an unlimited survival horizon exists under a hypothetical stress scenario of a simultaneous institution-specific and market-wide stress event. This hypothetical stress scenario is illustrated in the "combined stress scenario" funding matrix. Permanent solvency and an unlimited survival horizon are achieved by setting a limit of 0 on the liquidity balances of all relevant maturity bands for periods of up to 20 years.

In the normative perspective, thresholds are set that take into account the regulatory requirements. It is decisive that the chosen thresholds provide a sufficient amount of time for the preparation and initiation of management measures. Escalation and information processes are triggered as part of governance purposes when the thresholds are reached. The thresholds are also reviewed and adjusted if necessary as part of an annual revision process. The maximum level of risk corresponds to the red thresholds for the LCR and NSFR used for internal management purposes. In the current situation, this is based on the applicable regulatory requirement (currently 100%) plus a management buffer.

In the normative perspective, the liquidity risk that the Deka Group is willing to accept is the amber thresholds for the LCR and NSFR used for internal management purposes. These are comprised of the red threshold used for internal management purposes plus a management buffer. The management buffer has been determined taking into account the ECB guide to the ILAAP and is essentially based on the results of the annual risk inventory process and strategic considerations to ensure flexibly to potential business opportunities without jeopardising liquidity adequacy.

Risks impacting the income statement arising from refinancing gaps (liquidity maturity transformation risk) are currently not material because the limits placed on liquidity balances in the FM prohibit negative balances, meaning that maturity transformation is only possible to a very limited extent.

Market liquidity risk is reflected in the economic and normative perspective using haircuts on the market value of liquid assets. A suitable stress scenario is used to monitor the market liquidity risk affecting the income statement as part of market price risk. As market liquidity risk is not considered material, it is not currently necessary to hold capital for the purposes of risk-bearing capacity.

Liquidity positions are managed by the Treasury corporate centre. Liquidity management involves managing and monitoring short-term and structural liquidity and offsetting liquidity costs and benefits. The Treasury corporate centre also ensures an ample liquidity buffer of central bank-eligible collateral and deposits with the Bundesbank. In addition, it is in charge of managing the Deka Group's liquidity buffer as well as controlling the level of liquidity ratios. Operational liquidity management across all maturity bands is also handled centrally by the Treasury corporate centre.

The liquidity position and compliance with risk appetite are analysed, for the economic perspective, across the entire Group by the Risk Control corporate centre and monitored independently from the front office units in organisational and procedural terms. The Finance corporate centre is responsible for determining the LCR and NSFR and monitoring compliance with the thresholds set.

In the event of a liquidity emergency, a crisis committee assembles. It may decide all measures judged necessary to ensure the short-term solvency of the Group and may instruct all units of the Deka Group to implement these measures. The Board of Management, as a permanent member with a voting right, is the core of this crisis committee. Continuous monitoring of market-wide and institution-specific early warning indicators and emergency triggers anticipate potential liquidity crises so that appropriate countermeasures can be quickly implemented in the event of adverse developments.

Medium term and funding planning

Medium-term planning involves an integrated planning process for profits, balance sheets, funding, capital and risk at Deka Group level for the next three years. This looks at liquidity adequacy in the economic and normative perspective for planning horizons, including under adverse scenarios.

Funding planning must sustainably fulfil the requirements relating to risk appetite, i.e. sustainably adhere to the limits of the combined stress scenario funding matrix and to the applicable regulatory ratios. In the case of the latter, both short-term (LCR) and medium-to-long-term liquidity adequacy (NSFR) are examined under adverse scenarios. The liquidity subgroup is included in the Deka Group perspective.

Economic perspective: Funding matrices

Funding matrices (FMs) are the main measure of liquidity risk in the economic perspective. The purpose of the funding matrix is to show expected future cash flows across the portfolio as at the reporting date. The liquidity requirement (liquidity gap) or liquidity surplus is determined for each maturity band based on these flows. In addition, freely available financial resources, such as realisable assets in the form of securities, over-coverage in cover registers and other sources of funding, are identified as potential liquidity on an aggregated basis. The liquidity balance for each maturity band is determined from the sum of the cumulative liquidity gap and the cumulative liquidity potential.

The basis for the model is cash flows as indicated by legal maturities. This approach is based on the sum of all legal net cash flows per maturity band. Reconciliation between the amount from a legal perspective and expected cash flows is performed using modelling assumptions. Securities used for liquidity potential are allocated either to the liquidity buffer or to operational securities portfolios.

The liquidity buffer is used to cover possible stress-induced liquidity outflows from the banking book as well as stochastic liquidity outflows that cannot be influenced by the Deka Group or can only be influenced to a limited extent (stochastic liquidity position). The liquidity buffer is the responsibility of the Treasury corporate centre. The minimum level required and currency composition of the liquidity buffer are determined by Risk Control on a quarterly basis. The results are reported to the MKR and MKAP. The Treasury corporate centre may independently propose a higher liquidity buffer. The Board of Management sets the level of the liquidity buffer based on the MKAP's recommendation.

The operational securities portfolios comprise all freely available securities. These can be divided into securities that fall within the remit of the Capital Markets business division and portfolios that are allocated to the Treasury corporate centre and which do not form part of the liquidity buffer.

As well as being used for ordinary business operations (going concern), funding matrices are also analysed under different stress scenarios. This ensures that even under stressed market conditions, sufficiently liquid funds are maintained to cover any potential liquidity need.

The Deka Group primarily examines the "combined stress scenario" FM, which simulates the simultaneous occurrence of both the institution specific and market-wide stress factors. The MaRisk requirements for liquidity management, including those under stress scenarios, are thus fully implemented. A traffic light system in the "combined stress scenario" FM, consisting of early warning thresholds and limits, is used to manage compliance with risk appetite – i.e. to ensure that the Group is solvent at all times with an unlimited survival horizon in a stress scenario that is both institution-specific and market-wide – and is monitored daily. The use of limits means that the liquidity balance must be positive for all the maturity bands monitored. In addition, individual stress scenarios are examined separately in special FMs for which different modelling assumptions are used. Among other factors, market liquidity risks arising from a reduction in the market value of the securities in the liquidity potential are taken into account in these stress scenarios.

Liquidity risks in foreign currency are monitored daily based on the "combined stress scenario" FM in the relevant foreign currency using materiality and alarm thresholds.

Normative perspective: Liquidity coverage ratios

The Finance corporate centre monitors the internal amber threshold as part of the daily calculation of the LCR for DekaBank Deutsche Girozentrale (which, together with S Broker, forms the liquidity subgroup). This enables proactive management of the LCR. An NSFR is prepared on a monthly basis at Group and sub-Group level along with an LCR.

Tools for both perspectives

DekaBank has established a liquidity transfer pricing system (funds transfer pricing) for the source-specific internal allocation of liquidity costs, benefits and risks. The transfer prices calculated are taken into account in the management of risks and returns. The liquidity transfer pricing system is used to allocate economic costs on a source-specific basis as well as the costs for maintaining the liquidity buffer and complying with regulatory requirements (e.g. LCR and NSFR). The use of a liquidity transfer pricing system for source-specific allocation allows liquidity to be proactively managed and efficiently allocated.

Macroeconomic stress testing for all risk categories is used to manage both capital and liquidity adequacy. For the economic perspective, the impact of the stress scenarios on liquidity balances is calculated and compared to the relevant funding matrix. Similarly, in the normative perspective, the effects of the stress scenarios on the LCR and NSFR are calculated and compared to the regulatory requirements.

The results of the macroeconomic stress tests in relation to liquidity adequacy, too, are determined quarterly, assessed by the Stress Testing Committee and reported to the Board of Management, the Risk and Credit Committee, and the Administrative Board.

Reporting

Appropriate and high-quality aggregation of risk data and reporting based on this provide the foundations for effectively monitoring and managing risk appetite within the framework of the risk strategy. Key instruments for risk reporting include the quarterly risk report in accordance with MaRisk to the Board of Management and the Risk and Credit Committee of the Administrative Board, as well as the monthly reporting on the economic risk situation and financial ratios to the Board of Management. The Board of Management also receives more extensive reports for individual risk types, which contain key information on the current risk situation. The Administrative Board receives a three-part quarterly report on the development of earnings, value drivers and risks at the level of Deka Group and in the individual business divisions (including the Treasury corporate centre).

Risk concentrations in relation to individual counterparties (cluster risks and analysis of shadow banking entities) are reported on a monthly basis to the Board of Management and the key risk committees as part of the report on the economic risk situation. In addition, a detailed analysis of all individual counterparties classified as clusters and the associated segment concentrations in comparison to the guidelines set by the credit risk strategy is conducted on a quarterly basis as part of the quarterly risk report. If necessary, adjustments are made to the number and volume of the relevant counterparties.

Further overall reports also include the quarterly stress testing report, which particularly includes the results of macroeconomic stress tests and performs a crucial early warning function in this respect.

Besides these overall reports, there are also corresponding reports for every type of operational limit that is set. These reports are used to monitor compliance with the respective guidelines on a daily basis. Any breach is immediately brought to the attention of the authorised decision maker – and in the event of material breaches, also the Board of Management. If the liquidity balance exceeds the limit, the Board of Management is notified immediately. Moreover, the LCR is prepared daily and the NSFR monthly in the reporting system of the Finance corporate centre and provided to monitoring units.

Capital adequacy in financial year 2022

The outbreak of the war in Ukraine fundamentally changed the macroeconomic environment. The rise in inflation, which began in 2021, not least as a consequence of the pandemic, continued unexpectedly sharply in the reporting year, partly in light of rising energy prices. The significant inflationary processes pushed central banks around the world into a cycle of interest rate hikes. The remarkably decisive end to the policy of zero or negative interest rates had an unmistakeable effect on developments in the global economy. The rate hikes caused yields to spike. By also announcing that they would start reducing their vast holdings of securities, the central banks reinforced the movement of capital out of riskier assets. This led to a sharp rise in spreads on sovereign bonds from the eurozone periphery and on corporate bonds. Meanwhile, the global stock markets came under strong downward pressure from heavy inflation rates, a multitude of supply and production difficulties, and in particular the large-scale withdrawal of monetary policy support. A countermovement began in most leading share indices starting in autumn. The interest rate gap between the United States and Europe, which opened up due to the Fed’s earlier moves on rate hikes, led to a depreciation of the euro against the US dollar, during which the euro fell below parity in September. After the more significant rate hikes by the ECB in autumn 2022, the euro recovered and rose back above parity.

Implementation of the benchmark reform initiated by the Financial Stability Board made further progress in 2022. Following the successful transition for pound sterling, the Japanese yen and the Swiss franc in 2021, the focus is now primarily on preparing to transition the existing US-dollar LIBOR-based positions. With Term SOFR, which is being actively sought after by customers, the market now has an established true alternative to compounded SOFR. DekaBank is among the first European banks to have issued Term SOFR-based loans.

Alongside the US dollar transition, the expansion of the product range for the new risk-free rates (RFRs) is the second big issue. As well as linear products such as swaps, RFR option markets are emerging in various currency areas. DekaBank is monitoring this development and will adjust its product range accordingly once the necessary market data becomes available.

As expected, the transition to date has had no appreciable effect on the risk ratios overall.

Looking at the Deka Group, market development in 2022, which was characterised by rising interest rates and credit spreads, sharply fluctuating share prices (which recovered noticeably towards the end of the year) and, above all, sharply increasing volatility, posed challenges for the management of trading and banking book portfolios. Active risk management enabled the Group to maintain its essentially neutral position in equities and interest rates in the trading book portfolios. In credit spreads, too, more conservative positioning meant that there was only a small increase in risk. In non-trading book portfolios, an increase in risk was seen for both interest rates and credit spreads. This was mainly driven by the higher volatility. Share price risk from these portfolios is affected by maturity effects to a greater extent than by market developments. Despite the various crises, the certificates business continued on a par with the previous years. Alongside share certificates, which have been in high demand in recent years, the rising interest rates also made interest rate certificates more attractive again. Rising interest rates and credit spreads were partly cancelled out by recovering share prices towards the end of the year in terms of the risks from Riester products and pension obligations. Overall, there was a slight reduction in these risks.

The Deka Group held adequate capital throughout the reporting period. In particular, the Common Equity Tier 1 capital ratio and utilisation of risk capacity and of the risk appetite remained at non-critical levels throughout.

Economic perspective (current situation)

During the reporting year, the models employed by the Deka Group for economic risk management continued to reflect the corporate and market situation in an appropriate and timely manner, taking into account the changes applied. The Deka Group's total risk exposure (value-at-risk, VaR; confidence level 99.9%, holding period of one year) at the 2022 reporting date was €2,488m, a significant increase of €757m on the 2021 reporting date (€1,731m). This was attributable to significantly increased counterparty, market price, business and operational risks. In contrast, there was a reduction in investment risk, which is not material overall.

At the same time, risk capacity remained almost unchanged year-on-year at €5,231m (year-end 2021: €5,308m), as movements in the individual items largely offset each other. Changes in various correction and deduction items, such as for deferred tax assets, had a particularly negative effect, which was offset chiefly by increases in retained earnings and the revaluation reserve. As a result of the developments described, the utilisation of risk capacity increased significantly as against the end of 2021 (32.6%) to 47.6%, although it remains at a non-critical level.

The development of risk capacity also particularly reflects interest rate-induced unrealised gains and losses on loans (on the asset side), liabilities (securities and loans) and other balance sheet items measured at cost, which have been additionally included since the end of September 2022 in order for internal capital to better capture economic value. The previous methodology only included the securities in the investment portfolio. Utilisation of allocated risk capital was non-critical both at Deka Group level and in all business divisions. The risk appetite of €4,150m (slight increase on the end of 2021) was 59.9% utilised as at the 2022 reporting date (year-end 2021: 43.3%).

Change in Deka Group risk over the course of the year *€m (Fig. 17)*

	31 Dec 2022	31 Dec 2021	Change	
Counterparty risk	1,169	819	350	42.8%
Investment risk	23	30	–7	–21.9%
Market price risk	576	426	149	35.0%
Operational risk	331	280	51	18.3%
Business risk	388	176	212	120.4%
Total risk	**2,488**	**1,731**	757	43.7%

Normative perspective (current situation)

DekaBank made use of the exemption ("parent waiver") under Article 7 (3) CRR in conjunction with section 2a (5) of the German Banking Act (KWG) in the reporting year, opting not to meet the requirements laid down in Parts 2 to 5 CRR (Own Funds, Capital Requirements, Large Exposures, Exposures to Transferred Credit Risk) on an individual basis. The change in regulatory own funds at individual institution level is therefore not shown separately.

Capital adequacy is determined in accordance with the CRR. Alongside credit risk, market risk and operational risk, the credit valuation adjustment (CVA) risk is also taken into account. In accordance with Article 26 (2) CRR, the 2022 year-end profit less foreseeable charges and dividends was recognised for the first time in Common Equity Tier 1 capital as at 31 December 2022 (dynamic approach).

The Deka Group's regulatory own funds as of 31 December 2022 stood at €6,751m (year-end 2021: €6,075m).

Compared with the previous year, Common Equity Tier 1 capital increased by €746m from €4,716m to €5,462m. The increase was a result of the inclusion of year-end effects from 2021 and 2022 (mainly profit retention).

Additional Tier 1 capital was unchanged year-on-year. Compared with the previous year, Tier 2 capital was down by €71m to €690m. This was primarily due to the reduced eligibility of Tier 2 capital instruments under the CRR in the last five years before maturity. There were positive effects from the comparison of provisions.

RWAs increased overall by €415 m from the year-end 2021 figure of €30,944m to €31,360m. Compared with the end of 2021, credit risk dropped by €506m to €20,993m. This was caused by a decline in RWAs from lending business due to improvements in creditworthiness. Lower RWAs also resulted from the smaller shortfall in cover for guarantee products, mainly due to the higher (discounting) yield curve. At €5,645m, market risk was almost unchanged from the previous year (€5,588m). There was a drop in general market risks (internal model), while specific market risks (standardised approach) were almost unchanged. RWAs from operational risk amounted to €4,139m (2021: €3,500m). The increase was mainly due to a remodelling of loss scenarios (ex-ante perspective). CVA risk increased by €225m to €583m due to the higher volumes of derivative transactions to be included.

At 31 December 2022, the Common Equity Tier 1 capital ratio stood at 17.4% (year-end 2021: 15.2%). The Tier 1 capital ratio as of the reporting date was 19.3% (year-end 2021: 17.2%). The total capital ratio increased from 19.6% as of 31 December 2021 to 21.5%.

Taking account of the requirements of the SREP (Supervisory Review and Evaluation Process), DekaBank had to comply at Group level with a Common Equity Tier 1 capital ratio of at least 8.29% as at 31 December 2022. This capital requirement is made up of the Pillar 1 minimum requirement (4.5%) plus the Pillar 2 requirement (1.5%, reduced to 1.125% for the Tier 1 capital ratio and 0.844% for the Common Equity Tier 1 capital ratio, taking into account partial coverage of P2R by Tier 2 capital), the capital conservation buffer (2.5%), the countercyclical capital buffer (approximately 0.20% as at year-end 2022) and the capital buffer for other systemically important banks (0.25%). The capital requirement for the Tier 1 capital ratio was 10.07%. For the total capital ratio, it was 12.45%. These requirements were clearly exceeded at all times. The SREP Pillar 2 requirements remain unchanged for 2023.

Deka Group own funds in accordance with the CRR *in €m (Fig. 18)*

	31.12.2022	31 Dec 2021	Change	
Common Equity Tier 1 (CET 1) capital	5,462	4,716	746	15.8%
Additional Tier 1 (AT 1) capital	599	599	0	0.0%
Tier 1 capital	**6,061**	**5,314**	**746**	**14.0%**
Tier 2 (T2) capital	690	761	−71	−9.3%
Own funds	**6,751**	**6,075**	**675**	**11.1%**
Credit risk	20,993	21,499	−506	−2.4%
Market risk	5,645	5,588	57	1.0%
Operational risk	4,139	3,500	640	18.3%
CVA risk	583	358	225	62.7%
Risk-weighted assets	**31,360**	**30,944**	**415**	**1.3%**
%				
Common Equity Tier 1 capital ratio	**17.4**	**15.2**		**2.2%-points**
Tier 1 capital ratio	**19.3**	**17.2**		**2.2%-points**
Total capital ratio	**21.5**	**19.6**		**1.9%-points**

Since the end of 2021, the transitional provisions in the CRR have no longer been relevant for DekaBank. The table above therefore no longer distinguishes between figures with and without transitional provisions.

The leverage ratio, i.e. the ratio of Tier 1 capital to total assets adjusted in line with regulatory requirements (leverage ratio exposure), stood at 7.1% as at 31 December 2022 (year-end 2021: 6.2%). The increase was due to higher Tier 1 capital combined with a significantly smaller increase by comparison in leverage ratio exposure. The applicable minimum leverage ratio of 3.0% was thus exceeded at all times.

The MREL requirements are calculated using an RWA- and LRE-based method in accordance with supervisory requirements. The total of own funds and MREL-eligible liabilities is expressed in relation to RWA and LRE. As at the reporting date, the MREL ratio in line with the RWA-based approach amounted to 52.0% (year-end 2021: 59.7%), while the figure under the LRE-based approach came to 19.1% (year-end 2021: 21.7%). Both ratios were well above the applicable minimum ratios. As at 31 December 2022, own funds and MREL-eligible liabilities came to €16.3bn. As of the reporting date, this figure was composed of own funds of €6.8bn, senior non-preferred issues of €6.0bn, senior preferred issues of €4.1bn and unsecured subordinated liabilities of €0.3bn. The repurchases recently approved in accordance with the CRR were deducted for the calculation of the MREL ratios.

The subordinated MREL requirements are also calculated using an RWA- and LRE-based method in accordance with supervisory requirements. Eligible or total own funds and all subordinated liabilities eligible based on statutory requirements are added together and expressed in relation to RWA and LRE. As at year-end 2022, the subordinated MREL requirements in line with the RWA-based approach came to 35.9% (year-end 2021: 42.4%), while the figure under the LRE-based approach was 14.2% (year-end 2021: 16.4%). Both ratios were well above the applicable minimum ratios.

Macroeconomic stress tests

The in-depth analysis of the results of the macroeconomic stress scenarios in both perspectives also takes into account the probability of occurrence and lead time of the scenarios, calculated each quarter, as well as the possible mitigation measures available if necessary. Under this approach, the internal thresholds were complied with at all times during the reporting period and at the reporting date in all the scenarios examined, and no immediate action was required in relation to capital adequacy.

The implications for the Deka Group of the escalating conflict between Russia and Ukraine were also closely followed. With the outbreak of the war, the need to calculate a specific ad hoc scenario was identified. In the reporting year, this scenario was continuously adjusted to the changing circumstances and the impact on capital adequacy assessed. As part of the annual scenario review, the scenario was added as of 31 December 2022 to the list of scenarios calculated on a quarterly basis. This scenario does not present threat to capital adequacy.

In the context of further geopolitical developments, an ad hoc scenario was also calculated to address a possible escalation of the China-Taiwan conflict. This, too, has not identified any immediate need for action.

Liquidity adequacy in financial year 2022

The refinancing markets were heavily affected in 2022 by Russia's war against Ukraine and the associated rises in inflation and interest rates. Refinancing markets reacted to the outbreak of war with tension and volatility, as was evident, for example, in the market-wide increase in interest rates and liquidity spreads that followed the start of the conflict. DekaBank had access to ample liquidity on the money and capital markets. The higher interest rates boosted the attraction for investors of interest rate linked products again. DekaBank also benefited from the flight-to-quality effect.

The Deka Group had sufficient liquidity, measured using the liquidity balances and normative indicators, throughout the reporting period. There were no breaches of the internal limits and emergency triggers or the external minimum LCR and NSFR at any time.

Economic perspective

There were clear positive liquidity balances in all relevant maturity bands of the "combined stress scenario" funding matrix for periods of up to 20 years. This was also the case for the alternative stress scenarios. Limits were complied with throughout the 2022 financial year, at both Deka Group and liquidity subgroup level.

As at 31 December 2022, the accumulated liquidity balance of the Deka Group's "combined stress scenario" funding matrix in the short-term range (up to one week) stood at €8.2bn (year-end 2021: €9.4bn). In the maturity band of up to one month, the liquidity surplus totalled €8.0bn (year-end 2021: €9.2bn), and in the medium-term range (three months) it amounted to €10.5bn (year-end 2021: €6.2bn).

As in previous years, a substantial part of the Group's liquidity generation and provision was attributable to business with savings banks and funds. In relation to the net cash flows of approximately €5.5bn on day 1, the Deka Group has a high liquidity potential (around €2.7bn) that is readily convertible at short notice. The Group had access to a large portfolio of liquid securities which are eligible as collateral for central bank borrowings, as well as to available surplus cover in the cover pool and corresponding repo transactions. The strict requirements concerning the liquidity potential ensure that the securities used for this purpose can generate liquidity even in a stressed market environment.

"Combined stress scenario" funding matrix of Deka Group as at 31 December 2022 *€m (Fig. 19)*

	D1	>D1 to D5	>D5 to 1M	>1M to 3M	>3M to 12M	>12M to 5Y	>5Y to 20Y	>20Y
Liquidity potential (accumulated)	2,717	3,316	2,977	2,062	–1,324	–473	–132	–17
Net cash flows from derivatives (accumulated)[1]	–277	–271	–230	463	791	1,139	755	750
Net cash flows from other products (accumulated)	5,753	5,151	5,302	7,963	17,360	13,646	3,921	–669
Liquidity balance (accumulated)	**8,193**	**8,197**	**8,049**	**10,489**	**16,826**	**14,312**	**4,544**	**64**
For information purposes:								
Net cash flows from derivatives by legal maturity (accumulated) [1]	–277	–273	–315	–346	–534	–463	–604	1,035
Net cash flows from other products by legal maturity (accumulated)	–9,438	–11,663	–11,700	–10,706	–9,839	–2,296	–2,190	–576
Net cash flows by legal maturity (accumulated)	**–9,715**	**–11,936**	**–12,016**	**–11,052**	**–10,373**	**–2,759**	**–2,794**	**460**

[1] Including lending substitute transactions and issued CLNs

As at 31 December 2021, 56.3% (year-end 2021: 55.0%) of total refinancing related to repo transactions, daily and time deposits and other money market products. The remainder of the refinancing concerned capital market products, primarily with longer maturity profiles. Structured issues made up 73% of total capital market issues. The volume of commercial paper issued reduced from €2.5bn to €1.1bn year-on-year and thus remains at a very low level, as it was before the crisis. The refinancing profile for lending business was well balanced, given the maturity structure.

Money market refinancing remained broadly diversified across a range of investor groups. Most of the investors in money market refinancing are financial service providers such as clearing houses, stock exchanges and funds, or large banks and savings banks. The proportion of money market refinancing attributable to funds stood at 35.5% (year-end 2021: 39.6%), while other financial institutions accounted for 19.8% (year-end 2021: 23.5%), savings banks for 18.1% (year-end 2021: 10.3%) and central banks for 3.5% (year-end 2021: 9.1%).

Some 57.2% of total refinancing was obtained in Germany and other eurozone countries. Approximately 36.4% of total refinancing was accounted for by issues of bearer securities that cannot be attributed to any buyer country.

Normative perspective

Together with a subsidiary, DekaBank uses a liquidity waiver in accordance with Article 8 CRR. With the ECB's approval of the liquidity waiver for DekaBank and S Broker at individual institution level, the liquidity subgroup consisting of these companies is monitored in addition to the Deka Group.

The regulatory LCR requirements were met throughout the period under review. The LCR as at year-end 2022 stood at 159.1% (year-end 2021: 160.3%). The LCR at Deka Group level declined by 1.1 percentage points compared with 31 December 2021. In percentage terms, the decline in holdings of high-quality liquid assets was slightly stronger than the decline in net cash outflows. The average LCR for the reporting year was 178.3% (previous year's average: 160.2%). The LCR fluctuated within a range from 144.4% to 214.9%. It was thus always significantly above the applicable minimum limit of 100%.

The net stable funding ratio (NSFR) came to 118.1% (year-end 2021: 118.9%) and, at the end of December 2022, was thus significantly above the required 100%. Required stable funding increased more strongly in percentage terms compared with available stable funding. The ratio expresses available stable funding in relation to required stable funding. The NSFR is thus designed to ensure stable long-term funding for assets in relation to their degree of liquidity. A period of one year forms the basis for the assessment.

Both perspectives (macroeconomic stress tests)

The internal thresholds were complied with in both perspectives at all times, even in the macroeconomic stress testing.

Individual risk types

Counterparty risk

Strategic framework and responsibilities

The credit risk strategy stipulates the parameters for all Deka Group transactions that involve counterparty risk. It is based on the Deka Group's business strategy and risk strategy and applies across the board to all the Deka Group's organisational units. The Deka Group is committed to sustainable corporate governance and organises its lending business accordingly. The credit risk strategy serves in particular as the foundation for the Group's counterparty risk principles for loans as defined by section 19 (1) of the German Banking Act (KWG) and describes the business divisions and segments that are the focus of lending activities – including the specific risk determinants and minimum standards for new business. Furthermore, the credit risk strategy serves to distinguish between the individual risk segments and governs the handling of intra-risk concentrations, cluster risks and exposures to shadow banking entities under the EBA guidelines. All lending decisions that deviate from the credit risk strategy are classified as significant and must be reported in the credit risk report in accordance with MaRisk. Counterparty risks are monitored and managed in accordance with standard principles, regardless of whether the risks stem from trading or non-trading transactions.

The credit risk strategy outlines the Deka Group's risk culture. It aims to ensure that loans are only issued to borrowers who are able to fulfil the terms of the credit agreement and that lending is secured as required by adequate and appropriate collateral and in line with DekaBank's risk appetite. Sustainability risks, i.e. climate-, environment-, social- and governance-related factors (ESG factors) are also taken into account. Adherence to the overall objectives, risk determinants and minimum standards for lending ensures that lending decisions are taken in accordance with the risk culture.

In the context of risk-bearing capacity, counterparty risks are limited by allocating risk capital (risk appetite) both overall and at business division level. For individual counterparties, risk is restricted using a limit system based on factors such as creditworthiness, collateral, duration and country and sector considerations. Management and monitoring of risk concentrations (cluster risks and risks from exposures to shadow banking entities) also takes place at individual counterparty level. In addition, strict lending standards apply depending on the risk segment. These concern, for instance, lending structure and adequate risk sharing by the borrower. In addition, a blacklist is used in line with the credit risk strategy to avoid undesirable lending business that could involve reputational risks or an increased level of risk, or which does not meet the high sustainability requirements.

In accordance with MaRisk, there must be a functional separation in the lending business between the "front office" and the "back office" that extends to the responsible member of the Board of Management. The responsibilities performed by the "back office" particularly include providing a second opinion independent of front office operations, ongoing management of exposures for certain financing, monitoring risks at borrower and portfolio level, acting as the administrative office for early risk identification, reporting, reviewing specific items of collateral and managing non-performing and troubled loans (including making decisions regarding loan-loss provisioning). Responsibility for applying risk classification procedures, and for establishing, reviewing and monitoring those procedures, is also classified as a back office function.

Authority levels for lending decisions are based on the net total limit and the gross limit or gross amount. The approval of the Board of Management – and potentially the additional consent of the Risk and Credit Committee – may be necessary, depending on the amount and the rating limits.

The Management Committee for Assets and Liabilities (*Managementkomitee Aktiv-Passiv* – MKAP) and the Risk Management Committee (*Managementkomitee Risiko* – MKR) are responsible for strategically managing and monitoring counterparty risks and their risk concentrations across all risk types. A number of sub-committees have been assigned to the MKR to deal with counterparty risk. The Rating Committee regularly analyses and assesses the internal rating procedures employed for measuring risk and, where relevant, their inclusion in the pooling system developed in joint projects with Rating Service Unit GmbH (RSU) and S-Rating und Risikosysteme GmbH (SR). The Monitoring Committee is responsible for regularly analysing and discussing matters in connection with the methods and procedures employed for early risk identification as well as for monitoring and managing exposures with increased counterparty risk (non-performing loans and those on the watch list). The duties of the Risk Provisioning Committee include regularly analysing and discussing matters in connection with the planning, monitoring and management of risk provisions for loan losses, and also monitoring and managing defaulted exposures (restructuring and liquidation cases) in the lending business as well as in the securities portfolios not recognised at fair value through profit or loss.

Responsibilities for the assessment and monitoring of country risks are consolidated in the Country Risk Committee. Among other things, it is responsible for discussing country ratings on both a regular and ad hoc basis, approving and defining country limits within its scope of authority, identifying countries to be excluded (blacklist for high-risk countries) and determining measures to reduce overruns of country limits as well as other risk-reducing measures.

Managing, limiting and monitoring risk

The Deka Group uses different tools to manage and monitor its counterparty risk: overall analysis at the total portfolio level and a multi-level system of volume-based limits.

Capital allocation for counterparty risks

The starting point for the strategic analysis of counterparty risk is the allocation of capital, which is derived from the Deka Group's risk and capital planning. It is the foundation for the limitation and monthly monitoring of counterparty risk at total portfolio level and at the level of individual business divisions, including the Treasury corporate centre. The allocation is quantified based on the Deka Group's credit portfolio model, which is used to determine the portfolio's risk of loss in the form of a credit value-at-risk (CVaR) metric for a one-year holding period and at a confidence level of 99.9%, in line with DekaBank's target rating. Risk concentrations are taken into account directly through this model: portfolios that have a strong concentration on individual groups of counterparties, regions or sectors involve a higher economic capital commitment than those that are more diversified. The individual risk ratios are reviewed on a monthly basis to provide a foundation for overall management decisions.

Operating management limits

The key instrument for daily operational management of counterparty risk is a system of fixed, complementary volume-based limits. In light of the concentration on specific groups of counterparties, regions and sectors that results from the Group's business model, the limitation of both unsecured volume (net limitation) and the total volume (gross limitation) plays a central role in this process. The amount of the limits is primarily oriented towards the internal rating of the corresponding counterparties and is subject to continuous monitoring. In order to limit concentration, additional targets have been set for the maximum permitted amount per counterparty (gross limit €3.5bn/net total limit €1.6bn). Particularly important counterparties from a business policy perspective (clusters) are also subject to separate monitoring and assessment above a specific amount. Separate limits apply in the case of exposures to shadow banking entities. The Deka Group distinguishes between transparent shadow banking entities (principal approach) and less transparent shadow banking entities (fallback approach). Further minimum requirements for the quality of collateral received apply to particularly significant repo lending transactions. These requirements are contained in the collateral policy. Furthermore, liquidation risks associated with repo lending transactions are further limited by the application of supplementary limits in order to take into account potential fluctuations in the value of the underlying securities.

Loans that involve specific project, sustainability or reputational risks are not entered into. Detailed risk determinants and minimum standards have also been established for the individual financing categories.

The explicit limitation of country risks serves to effectively limit positions in countries with elevated risk. Only the risk position relating to Germany is excluded from this process of limit-setting.

In S Broker's Lombard lending business for retail customers, counterparty risks are limited by the provision of collateral.

Quantification of counterparty risk
Market prices are always used to determine gross counterparty risk. In the case of products for which there is no observable market value, the net present value is used. The outstanding receivable amount is used for advance performance risk and open items. The adjusted gross position is then calculated by deducting specific insolvency-proof collateral. The overall net position is arrived at by deducting additional collateral and positions that reduce risk, with valuation of collateral following the internal regulations that apply in each case.

In order to achieve consistency between the strategy system, management tools and risk reporting, the concepts of volume used in risk reporting – gross or net loan volume – are closely aligned with the metrics used for limit-setting, namely adjusted gross position and overall net position. Gross and net loan volumes referred to below relate to the adjusted figures.

The assessment of counterparty risks for individual borrowers includes the use of internal rating systems. Borrowers are assigned to an internal rating class with corresponding estimates of the probability of default (PD).

The internal rating systems currently used are tailored to different risk segments, including corporates, banks, governments, funds and specialised financing. The rating systems include conventional scorecard models and models in which the probability of default is estimated using simulated macro and micro scenarios for risk drivers and expected cash flows. The regulator has approved the rating systems for the foundation internal ratings-based approach (IRBA). The Bank has requested to return the IRBA approval and hence apply permanent partial use in accordance with Article 150 CRR for the models for public authorities outside Germany, the DSGV joint liability scheme and insurance companies.

When measuring the transfer risk on payment obligations that are denominated in a foreign currency from the borrower's perspective, the borrower rating is influenced by the country rating.

All of the rating modules in use are calibrated to a one-year probability of default. The rating classes are uniformly assigned according to the probability of default based on the master scale of the German Savings Bank and Giro Association (*Deutsche Sparkassen- und Giroverband* – DSGV). This scale serves as a standard reference for a differentiated creditworthiness assessment. The DSGV master scale provides for a total of 21 rating classes for non-defaulting borrowers and three for defaulting borrowers.

Counterparty risks from a portfolio perspective are assessed with the help of an internally developed credit portfolio model. The portfolio model is largely based on a credit metrics approach. In addition to default risks, the risks arising from a change in ratings are also taken into consideration. The probability distribution for changes in the value of the loan portfolio is generated using a Monte Carlo simulation.

The CVaR and, for information purposes, the expected shortfall (ES) are key figures for management decisions and are both determined with a holding period of 250 trading days and a confidence level of 99.9%. Risk concentrations are taken into account by considering the dependency structure of risk factors. In particular, the modelling approach selected considers dependencies between crisis events. In addition to the CVaR from the credit portfolio model, the CVaR for fund units in the Group's own investment portfolio and the risk of changes in specific provisions are also taken into account.

Risk models are validated on both a regular and ad-hoc basis, and the results play an important role in assessing whether the models are adequate. Accordingly, any requirements for further development that arise from the validation procedure are then integrated into the process for identifying and quantifying risks. Overall, the validation exercises carried out confirm that the credit portfolio model is appropriate.

The standard risk costs incorporated into the calculation of the expected return on equity are based on an expected-loss approach and relate to the likelihood of default, the loss rate and the maturity of the transactions. The cost of equity is determined using risk amounts differentiated by individual transaction and corresponding sector and regional allocations. Risk concentrations are included for individual counterparties (clusters), regions and industries by taking into account the cost of equity in the structuring of loan terms.

Management and monitoring of counterparty risks
The Deka Group's counterparty risk, as determined by CVaR, is directly compared with allocated risk capital. Credit risks are thus monitored based on a redistribution of the CVaR to individual transactions and reaggregation to the business divisions.

Daily management and monitoring of counterparty risk uses a volume-based limitation of the net position and the adjusted gross position.

As a supplement to its volume-based limits, the Deka Group uses thresholds for risk concentrations in connection with individual counterparties, known as clusters. This entails further precautionary procedures for large exposures and monitoring routines for risk concentrations as appropriate. Thresholds for sectors are not meaningful due to the Deka Group's specific business model and are thus not taken into account.

The Risk Control corporate centre monitors the limits using a centralised limit monitoring system at both the borrower-unit level and the borrower level. A comprehensive and market-based early warning system ensures that the individual counterparties subject to limits are monitored so that, in the event of extraordinary developments, countermeasures can be taken at an early stage. At a portfolio level, an analysis of the most significant borrowers and sectors is also carried out, based on CVaR. Maximum country limits are derived from a limit matrix, which is calculated based on a foreign currency (FC) country rating and the gross domestic product. Individual country limits within the limit matrix are approved by the Country Risk Committee. The Risk Control corporate centre monitors compliance with the respective country limits. Overruns are reported immediately to the members of the Country Risk Committee and to the Capital Markets Credit Risk Management unit. This unit acts as the central administrative office for country limits. An analysis of the most significant countries or regions is also carried out from a portfolio perspective, based on CVaR.

The MKR monitors and assesses risk concentrations for individual counterparties, regions and industries.

In addition to requirements concerning the liquidity of the securities, the additional investment criteria for the liquidity management portfolio managed by the Treasury corporate centre include, in particular, stipulations regarding issuers, credit rating and portfolio diversification. Compliance with these rules is monitored daily by the Risk Management unit, which is independent of trading operations. Any breaches are reported immediately. In addition, reporting takes place monthly to the MKR and MKAP. This includes an analysis of the holdings in the portfolios and the portfolio structure.

The Deka Group has issued extensive processing and valuation guidelines for collateral obtained in lending and trading transactions. The procedures for verifying valuation of collateral received in the course of lending business, including guarantees, sureties, charges on commercial and residential property, registered liens and the assignment of receivables, are applied on an annual basis. Valuation of collateral and of any discounts applied to it is primarily based on the creditworthiness of the party providing the guarantee, or in the case of asset collateral, on the market value, fair value or lending value of the financed property.

Management and monitoring activities also focus on financial collateral provided in the form of securities and obtained as part of repo lending transactions. Due to the business model, these comprise by far the largest share of the collateral portfolio as compared to the lending business.

The Group's collateral policy sets minimum requirements for securities borrowed by counterparties or received as collateral in repo lending transactions and OTC/CCP derivatives transactions. In addition, risk concentrations are restricted using category-specific concentration limits for equities and bonds, as well as a concentration limit (volume restriction) for each counterparty that applies across all categories.

The Capital Markets business division is responsible for compliance with the requirements of the collateral policy. It is supported operationally in this regard by the Collateral Management unit. A review independent of trading is performed daily by the Risk Management unit. Market- and counterparty-specific matters that could significantly affect the risk profile or profitability of the Capital Markets business division are analysed in the Risk Talk. In addition, an analysis of collateral received is reported to the Risk Talk.

Performance of stress tests

In addition to the macroeconomic stress tests performed across all risk types, additional sensitivity tests are conducted for counterparty risk. Scenarios include, for example, a rating downgrade by one notch or the ineligibility of physical collateral. The results of the stress tests are determined quarterly and reported to the Stress Testing Committee, the Board of Management, the Risk and Credit Committee and the Administrative Board. They therefore enable the Group to identify areas for action as early as possible if crisis situations start to unfold.

Default monitoring

The Monitoring Committee is operationally responsible for monitoring and managing non-performing loans and those on the watch list. In particular, this includes specifying early warning indicators and criteria to allocate exposures to different monitoring levels.

Operational responsibility for identifying defaults and monitoring and managing restructuring and liquidation cases lies with the Risk Provisioning Committee. The latter is also responsible for regularly analysing and discussing matters in connection with planning, monitoring and managing risk provisions.

DekaBank determines risk provisions and provisions for off-balance sheet lending business in accordance with the expected credit loss model under IFRS 9. Details of this methodology can be found in the notes to the consolidated financial statements.

Current risk situation

The counterparty risk determined on the basis of the credit value at risk (CVaR), with a confidence level of 99.9% and a holding period of one year, increased significantly in the reporting year to €1,169m (year-end 2021: €819m). Risk capital allocated to counterparty risk stood at €1,460m (year-end 2021: €1,595m) and was 80.1% utilised (year-end 2021: 51.3%). The level of risk capacity utilisation therefore remained non-critical.

The risk development was due predominantly to spread widening, particularly in the second half of the year, as well as to an increase in exposures and rating downgrades. The updates to the correlation assumptions in May also resulted in a significant increase in risk.

The risk position of the cluster portfolio was assessed using an expected shortfall redistribution, which resulted in a significant increase compared with the previous year. The relative share of the cluster portfolio in the overall portfolio remained the same. Risk concentration thus remained in line with the Deka Group's credit risk strategy.

Gross loan volume increased by €5.5bn from the end of 2021 to reach €129.4bn. Money market transactions, bonds and leases in the savings banks risk segment made the largest contribution to this increase. Gross loan volume in the commercial banks risk segment increased due to a higher volume of securities and repos. In the funds risk segment, risk was increased by the higher volume of securities issued as collateral as part of borrowing transactions. Meanwhile, a reduced bond volume and changes in the value of derivative hedging instruments in the public sector risk segment had a risk-reducing effect. In the insurance companies risk segment, a reduction in repo lending transactions caused the gross loan volume to decline. The lending business volume (particularly in the conventional energies and infrastructure risk segment) was down on the figure for year-end 2021. The ship portfolio's share of gross loan volume stood at 1.0%, unchanged from year-end 2021. The aviation segment had a share of 1.9% (year-end 2021: 2.2%).

Gross loan volume *€m (Fig. 20)*

	31 Dec 2022	31 Dec 2021
Commercial banks	20,878	16,834
Other financial institutions	26,050	26,114
Savings banks	12,742	5,957
Insurance companies	724	1,881
Industrial sector	4,779	5,671
Service sector	2,256	2,837
Public sector	6,839	10,193
State-affiliated and supranational institutions	19,453	19,395
Transport sector	4,031	4,364
Renewable energies	1,434	1,497
Conventional energies and infrastructure	4,483	5,055
Real estate sector (including real estate funds)	11,669	11,531
Retail sector	76	124
Funds (transactions and units)	13,988	12,460
Total	**129,403**	**123,913**

Net loan volume increased by 12.9% as against the end of 2021 (€64.0bn) to reach €72.2bn and outpaced gross loan volume. Collateralisation meant that the changes in gross loan volume observed in relation to both repo lending volume (especially in the commercial banks, other financial institutions, insurance companies, state-affiliated and supranational institutions, and funds segments) and share price risks from securities (especially in the commercial banks, industrial and service sector segments) had relatively small effects on the net loan volume. A higher bond volume in the commercial banks risk segment and a larger volume with other financial institutions and savings banks had a particular risk-increasing effect in net loan volume. Declines were seen particularly in the net bond portfolio in the public sector and state-affiliated and supranational institutions risk segments.

Net loan volume *€m (Fig. 21)*

	31 Dec 2022	31 Dec 2021
Commercial banks	10,311	6,373
Other financial institutions	5,438	4,144
Savings banks	12,624	5,772
Insurance companies	191	208
Industrial sector	2,376	2,196
Service sector	1,389	1,401
Public sector	4,976	7,986
State-affiliated and supranational institutions	17,153	18,450
Transport sector	536	791
Renewable energies	1,434	1,497
Conventional energies and infrastructure	3,420	3,472
Real estate sector (including real estate funds)	3,213	2,937
Retail sector	76	124
Funds (transactions and units)	9,064	8,603
Total	**72,199**	**63,955**

The gross loan volume in the eurozone rose by a total of €4.9bn. This was due to increased repo lending transactions with counterparties in Germany and France and to increased financial transactions with savings banks. Lower securities volumes with German and Dutch counterparties had a risk-reducing effect. As a result, the percentage of gross loan volume increased from 78.0% at the end of 2021 to 78.5%. The volume movements in America resulted mainly from greater exposure to repo lending business with US counterparties and an increased securities volume with Canadian counterparties.

Gross loan volume by region *€m (Fig. 22)*

	31 Dec 2022	31 Dec 2021
Eurozone	101,561	96,642
Europe excluding eurozone	13,579	13,811
America	10,870	9,622
Asia	2,864	2,926
Other countries	529	913
Total	**129,403**	**123,913**

The gross loan volume attributable to Germany increased by €5.5bn to €68.1bn and equated to 52.6% of the overall portfolio at year-end. In the eurozone, €13.4bn or 10.4% of the gross loan volume was attributable to counterparties in Luxembourg. Counterparties in France accounted for 7.0% of the gross loan volume, and counterparties in Belgium accounted for 4.0%.

Gross loan volume by regional concentration *in €m (Fig. 23)*

	31 Dec 2022	Percentage of Gross loan volume
Germany	68,110	52.6%
Luxembourg	13,422	10.4%
United Kingdom	9,067	7.0%
France	9,021	7.0%
Belgium	5,234	4.0%
Spain	2,092	1.6%
Netherlands	1,448	1.1%
Italy	427	0.3%
Other	20,582	15.9%
Total	**129,403**	**100.0%**

The gross loan volume relating to counterparties in Spain and Italy fell to €2.5bn, from €3.3bn at the end of 2021. Due to the collateralisation provided by repo/lending transactions, the security provided for the bond portfolio using protection buyer CDS and the securing of loans, the net loan volume attributable to borrowers in Italy and Spain came to only around 37% of gross loan volume. The share of gross loan volume for counterparties in China totalled 0.3%. The figure for Hong Kong was 0.4%. In both cases, the counterparties were mostly in the transport sector. There was no gross loan volume attributable to counterparties in Taiwan. The gross loan volume for counterparties in Russia came to €43m. Due to the securing of loans through ECA guarantees for energy supply financing, the net loan volume attributable to Russia was significantly lower than the gross loan volume at around €2m. There remained no gross loan volume attributable to counterparties in Ukraine or Belarus at year-end 2022 and no country limit.

Gross loan volume by risk segment for selected countries as at 31 December 2022 *€m (Fig. 24)*

	Germany	Luxembourg	UnitedKingdom	United States	France
Commercial banks	5,450	807	1,305	1,764	5,191
Other financial institutions	7,218	7,578	4,366	1,728	198
Savings banks	12,742	-	-	-	-
Insurance companies	332	-	5	-	225
Industrial sector	2,526	15	513	452	298
Service sector	181	35	176	935	516
Public sector	4,694	7	226	188	742
State-affiliated and supranational institutions	19,365	1	-	-	5
Transport sector	493	-	279	705	128
Renewable energies	158	-	103	-	255
Conventional energies and infrastructure	1,716	135	248	126	300
Real estate sector (including real estate funds)	4,145	0	1,847	2,545	1,162
Retail sector	76	0	-	-	-
Funds (transactions and units)	9,015	4,843	-	-	-
Total	**68,110**	**13,422**	**9,067**	**8,444**	**9,021**
Change vs. previous year					
Commercial banks	–166	360	755	–54	2,198
Other financial institutions	–891	1,144	–569	882	–154
Savings banks	6,785	-	-	-	-
Insurance companies	58	-	4	-	–396
Industrial sector	–768	–7	9	30	–39
Service sector	–173	1	19	–243	106
Public sector	–2,595	7	–149	–326	199
State-affiliated and supranational institutions	196	–2	-	-	–122
Transport sector	–148	-	–20	32	–22
Renewable energies	–24	-	–16	-	29
Conventional energies and infrastructure	–191	–23	–104	–32	–30
Real estate sector (including real estate funds)	260	0	–205	162	–52
Retail sector	–48	0	-	-	-
Funds (transactions and units)	3,225	–1,615	-	-	–7
Total	**5,519**	**–135**	**–276**	**450**	**1,711**

The gross loan volume remained focused primarily on the short-term segment at the end of 2022. The proportion of transactions with a time to maturity of less than one year was 44.1% (year-end 2021: 40.2%). The proportion of maturities longer than ten years was 4.5%, compared with 6.2% at 31 December 2021. The average legal residual term of gross lending was 2.8 years (year-end 2021: 3.3 years).

Gross loan volume by maturity *€m (Fig. 25)*

	31 Dec 2022	31 Dec 2021
Up to 1 year	57,083	49,844
1 to 2 years	13,894	12,268
2 to 5 years	17,199	15,242
5 to 10 years	10,294	10,231
10 to 15 years	2,336	3,170
15 to 20 years	945	1,466
>20 years	2,534	3,048
No maturity	25,118	28,643
Total	**129,403**	**123,913**

There was no significant change in the level of risk concentration in the loan portfolio during the reporting year. As at 31 December 2022, 13.5% (year-end 2021: 15.8%) of total gross loan volume was attributable to borrower units with a gross limit of at least €2.5bn or an overall net limit of at least €1.0bn (counterparty clusters). The number of counterparty clusters increased year-on-year by 2 to 25. Counterparties in the public sector, savings banks and state-affiliated and supranational institutions accounted for 18.6% of the total volume of the cluster portfolio. A total of 10.8% of net loan volume related to counterparty clusters (year-end 2021: 14.4%).

The Deka Group also limits the shadow banking entity portfolio in accordance with EBA requirements. Shadow banking entities include, among others, money market funds, credit funds and inadequately regulated credit institutions. In addition to the overall limits imposed on shadow banking entities, limits are imposed based on the principal and fallback approaches. This does not affect the limits at the level of individual counterparties. As in the previous year, less than 1% of net loan volume as at 31 December 2022 related to shadow banking entities under the principal approach (limit utilisation of total net risk position: 21%). For shadow banking entities under the fallback approach, there were only very small exposures as at year-end 2022, which were attributable to third-party investment funds. The levels of utilisation are considered acceptable. The shadow banking entities had an average rating of 5 on the DSGV master scale.

The average rating for the gross loan volume was unchanged at a score of 4 on the DSGV master scale. The average probability of default as at 31 December 2022 was 22 basis points (bps) (year-end 2021: 24 bps), which was partly attributable to improved ratings for various counterparties in the aviation segment and in the public sector. These were partly offset by rating downgrades in the course of the year for various counterparties in the renewable energies risk segment. The average rating for the net loan volume deteriorated by one notch to a score of 2 amid a slightly changed probability of default of 12 bps (year-end 2021: 10 bps). 89% of net loan volume remained in the same grouping (determined by rating class) as at the end of 2021. The target rating under the credit risk strategy was achieved without difficulty for both the gross and net loan volumes.

Net loan volume by risk segment and rating *€m (Fig. 26)*

	Average PD in bps	Average rating 31 Dec 2022	31 Dec 2022	Average PD in bps	Average rating 31 Dec 2021	31 Dec 2021
Commercial banks	6	A	10,311	6	A	6,373
Other financial institutions	8	A	5,438	7	A	4,144
Savings banks	1	AAA	12,624	1	AAA	5,772
Insurance companies	14	3	191	6	A+	208
Industrial sector	13	2	2,376	14	2	2,196
Service sector	13	2	1,389	16	3	1,401
Public sector	4	AA–	4,976	3	AA	7,986
State-affiliated and supranational institutions	1	AAA	17,153	1	AAA	18,450
Transport sector	172	9	536	220	9	791
Renewable energies	211	9	1,434	66	6	1,497
Conventional energies and infrastructure	26	4	3,420	14	2	3,472
Real estate sector (including real estate funds)	13	2	3,213	17	3	2,937
Retail sector	N/A	N/A	76	N/A	N/A	124
Funds (transactions and units)	13	2	9,064	12	2	8,603
Total	**12**	**2**	**72,199**	**10**	**A–**	**63,955**

Market price risk

Strategic framework and responsibilities

The Deka Group's market price risk strategy, based on the Group's overall risk strategy, stipulates parameters for risk management in all organisational units regarding all positions in the trading and banking book that are exposed to market price risk. It sets objectives, priorities and responsibilities for market price risk management and, together with the liquidity risk strategy, governs the business focus of trading activities (trading strategy).

Market price risks need to be considered in the Asset Management divisions, in the Capital Markets business division and in the Treasury corporate centre. Market price risks in the Financing business division are passed on to the Treasury corporate centre.

The Deka Group's investment management companies are generally not subject to any market price risks beyond those associated with the investment funds. However, market price risks can arise for the Deka Group if products are provided with a guarantee. Market price risks from guarantee products are incorporated into the analysis of risk-bearing capacity and attributed to the Asset Management Securities business division. Market price risk from guarantee products is managed by the Board of Management with the support of the Treasury corporate centre.

Within the risk management organisation, the Board of Management decides the market price risk limits for the Group as a whole, as well as at the level of the business divisions, including the Treasury corporate centre. It also decides on limits for interest rate risk in the banking book in the earnings-based perspective. The relevant department heads are responsible, in consultation with the head of Risk Control, for reallocating existing limits below the level of the Capital Markets business division and Treasury where appropriate. The allocation of limits reflects the organisational structure. In addition to this, the Risk Talk sets sensitivity limits for the Capital Markets business division.

The MKR and MKAP make recommendations with respect to the definition of the framework for the management of strategic market price risk positions to the Board of Management, which then adopts resolutions accordingly. The MKR issues recommendations on thresholds for the Common Equity Tier 1 capital ratio in the normative perspective and on limiting interest rate risks in the banking book in the earnings-based perspective. The MKAP gives recommendations on the operational management of interest rate risks in the banking book in the earnings-based perspective and on management measures in relation to the risks assumed on guarantee products. The latter is the role of part G of the MKAP, which focuses specifically on guarantee products. In its capacity as a sub-committee, the Risk Talk supports the MKR and the Board of Management in relation to the Capital Markets business division's operational processes for managing and monitoring market price risk. To do so, it conducts in-depth analyses on a range of issues relating to market and counterparty risks and makes recommendations and binding decisions on matters that might materially influence the Capital Markets business division's risk profile or profitability. These committees make an important contribution to communication between the departments responsible for the control and monitoring of market price risks.

Execution of transactions and recording exposures are the responsibility of the operating units. In terms of market price risks, they are solely responsible for the implementation of strategic guidelines and operational management within the prescribed risk limits.

Managing, limiting and monitoring risk

In the economic market price risk calculation, risk ratios are calculated on a net-present-value basis using the value-at-risk approach and with scenario analyses. The basis for daily market price risk monitoring (including interest rate risk in the banking book) is a system of operational limits that is consistent with the Group's overall risk-bearing capacity. This system defines limits in line with the business model for the various portfolio levels and risk categories. It also takes into account the focal areas of the portfolio determined by the business model. In addition, limits are set based on operating metrics such as sensitivities. These are primarily used for operational management of the capital markets business in order to monitor adherence to the risk strategies on an ongoing basis. The Group defines a stop-loss limit as another effective management tool for limiting losses. In addition to the net-present-value approach, interest rate risks in the banking book are also assessed using an earnings-based approach and limited for net interest income (NII).

Value-at-Risk (VaR)

VaR is calculated with a confidence level of 99.9% and a holding period of one year when analysing risk-bearing capacity; when determining the utilisation of operating limits, DekaBank calculates VaR for a holding period of ten days and a confidence level of 99.0%.

The operating VaR therefore corresponds to the maximum loss on a position held over a period of ten trading days, with a probability of 99.0%.

VaR key ratios are determined on a daily basis for all relevant risk categories and portfolios and are compared with the associated portfolio-specific limits.

To determine VaR, a sensitivity-based Monte Carlo simulation is used across all portfolios, including the banking book. This simulation ensures that all market price risks, particularly including non-linear risks, are identified in an integrated manner. The selection of risk factors is closely based on business activities and on the focal areas of the portfolio determined by the business model. Risk factors particularly include issuer-specific spread risk curves along with sector curves for various country/industry/rating combinations, spread curves for credit derivatives, reference curves for various fixed-rate periods (tenor-specific), individual stocks, exchange rates and implicit interest rate, equity and currency volatilities. Appropriate consideration is given to basis risk.

Market price risks that result from granting guarantees are measured using an approach specifically developed for this purpose and geared towards risk-bearing capacity, which does not take into account diversification effects with regard to other market price risks.

Sensitivity-based management metrics
The input parameters for this risk model are the sensitivity metrics delta, gamma and vega. These first and second ranking sensitivities express the price sensitivity of financial instruments to changes in underlying risk factors and are used to determine overall risk. They are also available as additional management metrics for risk assessment purposes.

Sensitivity analyses are defined as absolute or relative shifts in the different risk factors for interest rate, credit spread, share price and exchange rate movements. The sensitivity analyses are used to support the operational management of the risks from trading and treasury positions. They can also be used to manage risk concentrations, for example where risk factors are highly correlated.

Scenario considerations and stress analyses
The limit system is supplemented with regular market price risk-specific stress tests. Using these tests, the sensitivity of the portfolio is constantly tested with regard to a wide variety of trends in the various risk factors. Once again, the focus is on risks that are particularly relevant, using separate, portfolio-specific analyses.

Market price risk-specific stress tests take place at both overall portfolio level and for the banking book in isolation.

Market price risks are also an important component of the analysis of significant macroeconomic scenarios across all risk types.

Interest rate risk in the banking book in the earnings-based perspective
In the earnings-based perspective, interest rate risk in the banking book is measured using the net interest income from changes in interest rates and the valuation result arising from changes in interest rates. In the earnings at risk (EaR) approach, net interest income is simulated using various hypothetical shifts in the reference yield curve for each currency and compared to a reference scenario (using a reference yield curve applicable at the measurement date).

The scenarios used to measure interest rate risk in the banking book in the earnings-based perspective are also part of the net present value scenarios for the banking book. The various hypothetical shifts in the reference yield curve for each currency are used consistently in both approaches.

Interest rate risk in the banking book in the earnings-based perspective is calculated each quarter and monitored. The scenarios look at the three years following the date on which the calculation is based. The results of the change in net interest income at Group level are limited for each stress scenario in each of the three years. A dedicated escalation process must be adhered to in the event of any limit breaches.

Backtesting of VaR risk ratios and validation
Various steps are taken to test the quality of the VaR forecast, including regular backtesting for various portfolio levels. In this process, the daily results that are theoretically achieved assuming unchanged positions on the basis of the market developments observed on the following day are compared with the forecast value-at-risk figures for the previous day (clean backtesting). In addition, dirty backtesting regarding the actual change in value is also carried out, taking trading activities into account. The backtesting findings are also used to enhance the risk model. The results are reported on a quarterly basis. Overall, the backtesting results confirm the suitability of the market price risk measurement at both the bank level and at the level of subordinate organisational units. In addition, the approximation error of the delta-gamma approximation is reviewed on a monthly basis by carrying out a full valuation of the portfolio.

Risk models are validated on both a regular and ad-hoc basis, and the results play an important role in assessing whether the models are adequate. Accordingly, any requirements for further development that arise from the validation procedure are then integrated into the process for identifying and quantifying risks. Overall, the validation exercises carried out confirm that the market risk model is appropriate.

Current risk situation

In the context of risk-bearing capacity, market price risk at the Deka Group (value-at-risk, confidence level 99.9%, holding period of one year) as at the reporting date stood at €576m. The increase versus the end of 2021 (€426m) was mainly attributable to significantly increased spread and general interest rate risks. The risk development was influenced chiefly by market developments involving increased interest rates, wider credit spreads, fluctuating share prices and high volatility, and less by changes in positions.

Utilisation of the allocated risk capital for market price risk stood at €1,800m (year-end 2021: €1,300m). This represented a very comfortable utilisation level of 32.0%. In setting allocated risk capital, it was taken into account that guarantee products make a major contribution to market price risk and are highly sensitive to market movements. At the end of 2022, market price risk from guarantee products totalled €88.8m (year-end 2021: €100.0m). The sharp rises in interest rates, particularly in the first half of the year, had a risk-reducing effect. The measures decided in the previous year (end to sales for the two Riester products) meant that no further exposures were built up.

With a confidence level of 99% and a holding period of ten days, market price risk (value-at-risk), excluding risks from guarantee products, stood at €73.3m as at the reporting date (year-end 2021: €49.2m). Utilisation of the operational management limit at Deka Group level (excluding guarantees) stood at €105.0m (year-end 2021: €88.0m). This represented a utilisation level of 70% and was therefore non-critical.

Deka Group value-at-risk excluding risks from guarantee products[1] (confidence level 99%, holding period ten days) *in €m (Fig. 27)*

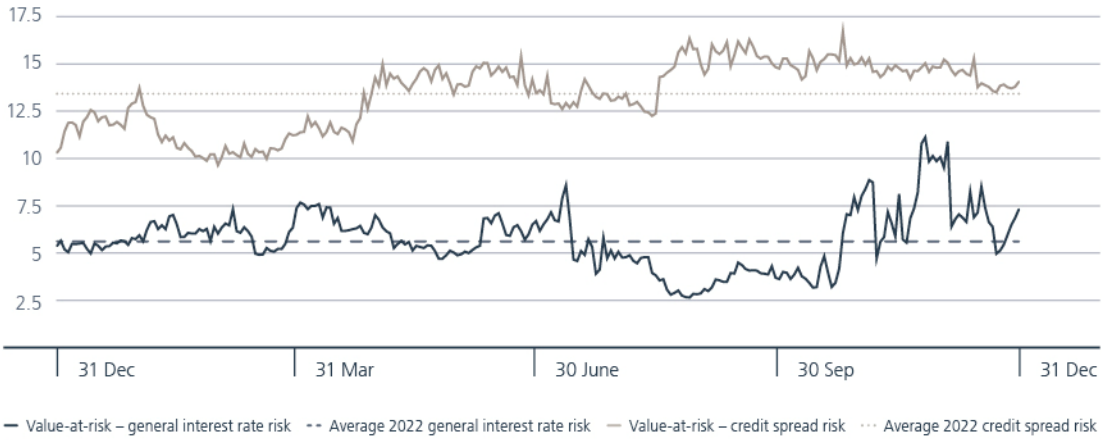
	31 Dec 2022						
Category	**Asset Management Securities business division**	**Asset Management Real Estate business division**	**Asset Management Services business division**	**Capital Markets business division**	**Treasury**	**Deka Group excluding guarantees**	Change in risk
Interest rate risk	2.2	0.0	9.6	14.5	65.8	75.4	53.9%
Interest rate – general	0.1	0.0	9.9	7.6	23.5	18.9	75.0%
Credit Spread	2.2	0.0	6.0	14.1	55.1	69.9	40.4%
Share price risk	0.4	0.5	0.8	12.7	14.2	10.5	−0.9%
Currency risk	0.3	0.0	0.0	0.7	2.2	2.6	−75.9%
Total risk	**2.2**	**0.5**	**9.8**	**19.9**	**64.3**	**73.3**	49.0%

[1] Risk ratios for interest rate risk and total risk taking account of diversification. Includes issue-specific credit spread risk.

At the end of 2022, the VaR for spread risk totalled €69.9m, which was higher than the level seen at year-end 2021 (€49.8m). Amid the crises affecting the economy, spread risk increased despite a reduction in bond positions. This was caused by widening spreads and increased volatility. Spread risk continues to substantially affect market price risk at Group level. In line with the business model, the largest risk drivers are variable and fixed-rate bonds issued by financial institutions, the public sector and corporates in Germany, western Europe and the US. Risk concentration for spread risk was consistent with the Deka Group's market price risk strategy.

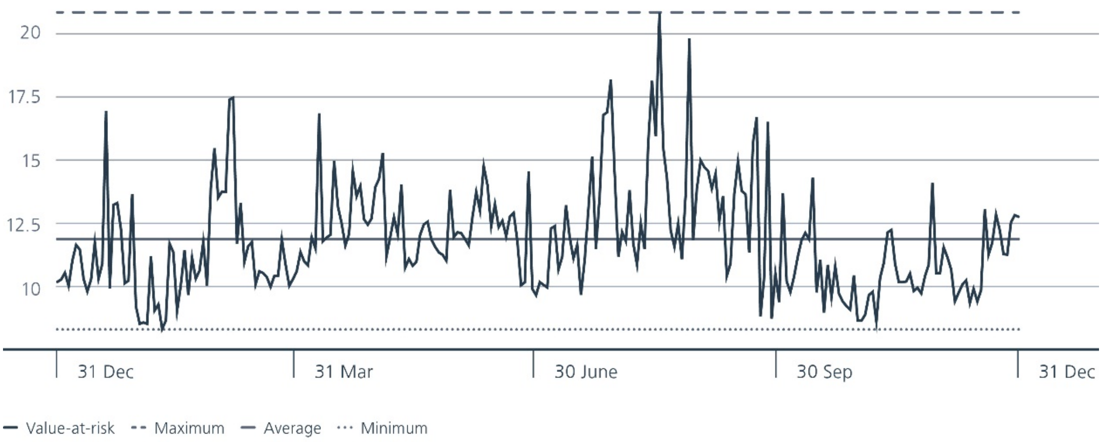
The VaR for general interest rate risk (excluding risks on guarantee products) rose from €10.8m at year-end 2021 to €18.9m. The increased risk was due to the sharp rise in interest rate volatility and to higher sales in the interest rate certificates business on the back of stronger demand.

Value-at-risk – General interest rate risk and credit spread risk in the Capital Markets trading book over the course of 2022 *€m (Fig. 28)*



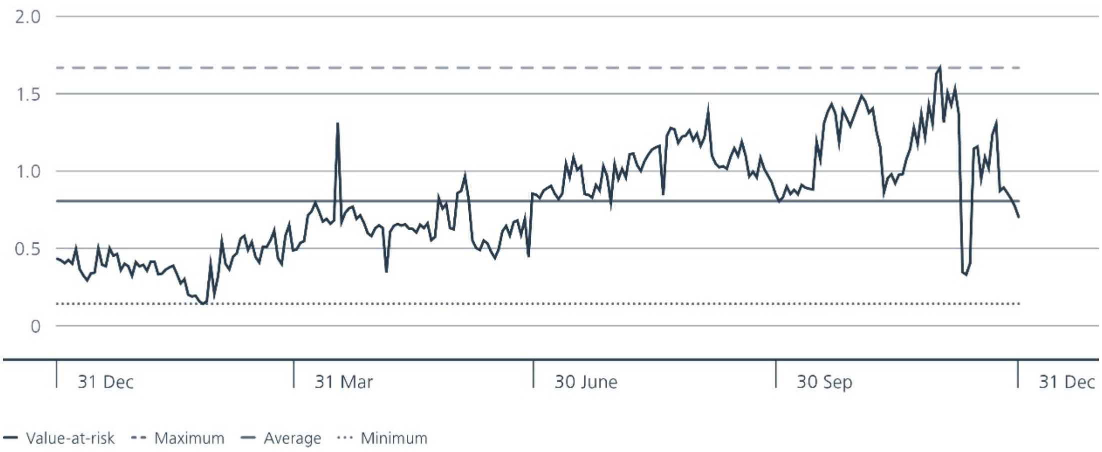
Share price risk was almost unchanged versus the end of 2021 (€10.6m) and stood at €10.5m at year-end 2022. It remains of low significance at Group level. Share price risk in the Capital Markets business division trading book amounted to €12.7m (year-end 2021: €10.2m). Macro hedges in the Treasury corporate centre had a risk-reducing effect at Group level.

Value-at-risk – Share price risk in the Capital Markets trading book over the course of 2022 *€m (Fig. 29)*



Currency risk, which mainly resulted from positions in US dollars, sterling and Canadian dollars, fell to €2.6m as a result of a reduction in these positions (year-end 2021: €10.8m) and so continued to be of minor significance. Currency risk in the Capital Markets business division trading book stood at €0.7m (year-end 2021: €0.4m).

Value-at-risk – Currency risk in the Capital Markets trading book over the course of 2022 *€m (Fig. 30)*



Operational risk

Strategic framework and responsibilities

The strategy for dealing with operational risks (OR strategy) is based on the Deka Group's overarching risk strategy. It sets out the Deka Group's basic approach to operational risks (OR) and guidelines for managing and controlling these risks. It defines the framework for the Group-wide establishment and operation of a standard system for identifying, assessing, managing and monitoring all operational risks. The OR strategy applies to all organisational units within the Deka Group.

OR management is based on the coordinated collaboration between different units as part of the Deka Group's established Three Lines of Defence model. The Board of Management has overall responsibility for appropriate and consistent handling of OR and is supported by recommendations from the Risk Management Committee (*Managementkomitee Risiko* – MKR).

Decentralised approach to risk measurement and management by the first line of defence

A decentralised approach to risk management is pursued via the Three Lines of Defence model. This means that each unit is responsible in principle, as part of the first line of defence, for assessing and managing future risks and documenting loss events in its area of responsibility.

Units such as IT, whose role is to centrally provide infrastructure or processes, are a special case and are also responsible for assessing risks related to their services across the Group.

Centralised monitoring and reporting by the second line of defence

The second line of defence sets and monitors adherence to relevant guidelines, thereby helping the units in the first line of defence to take only appropriate risks. The overarching view of the Operational Risk unit within Risk Control is complemented by specialist functions for the individual risk sub-types in the Compliance (compliance risk), Finance (tax law and tax compliance risk), Legal (legal risk), Information Security Management (ICT, security and service provider risk), Strategy & HR (personnel risk) and Organisational Development (process and project risk) units.

The central functions specialising in risk sub-types set specific objectives and guidelines for the design of processes and controls for the relevant risk type and monitor adherence to these. They also support the units in the first line of defence with risk type-specific methods for identifying, assessing and managing the relevant risk type.

The Operational Risk unit defines and monitors the Group-wide methodological guidelines and common methods of OR management. In addition, it aggregates the information collected locally and reports this to the heads of department and the Board of Management.

Independent review by the third line of defence
The third line of defence is the Deka Group's Internal Audit department. It supports the Board of Management and the oversight bodies (Administrative Board, Audit Committee) with its objective and independent assessment of the appropriateness and effectiveness of risk management, of the controls put in place and of the management processes at the Deka Group.

Objectives and guidelines
Maintaining a complete and up-to-date operational risk profile for the Deka Group is key to the handling of operational risks in order to ensure adequate capital and proper consideration of these risks in decision making. To minimise risks for the Deka Group and its stakeholders and make the best possible use of its resources, the Deka Group aims for appropriate management based on common principles. The common methods of OR management defined for this purpose and the minimum requirements for non-financial risks provide binding guidance and ensure the achievement of these objectives.

Integration into the concept of risk appetite
In the context of risk-bearing capacity, operational risks are limited by allocating risk capital (risk appetite) both overall and at business division level. The basis for this is a quantification model, which has been approved as an advanced measurement approach (AMA) and is used to calculate value-at-risk based on risk assessments and loss documentation. Value-at-risk is also incorporated into the regulatory capital requirement. The allocation of risk capital for OR to the business divisions (including Treasury) is primarily based on the number of employees and observed loss events in defined categories for the scale of losses.

Methods used
The Deka Group uses various methods for the management and control of operational risks. These complement each other and, taken together, enable a comprehensive management process for these risks. These include methods with a forward-looking (ex-ante) perspective, such as self-assessment and scenario analysis, as well as a backward-looking (ex-post) perspective, such as Group-wide loss documentation.

Alongside the common methods described below, the specialist functions in the second line of defence also use their own methods to monitor non-financial risks.

The self-assessment is based on detailed OR loss scenarios and is performed at least once a year. As well as describing and assessing risks with regard to their loss potential and the frequency with which they occur, the self-assessment process also identifies suitable measures to mitigate risk.

The scenario analysis serves as a detailed investigation and assessment of potentially serious loss events from operational risks, which, due to their cross-unit nature and extremely high maximum loss potential, cannot be adequately identified or quantified via the self-assessment process. As part of this process, regularly updated risk factors related to both the Group's internal controls and its business environment are incorporated into the assessment of scenarios. These factors therefore increase the sensitivity of the scenarios to risk and help the Group to identify developments and determine management actions in a timely manner.

OR loss events are recorded in a structured manner with the help of a central loss database starting from a minimum gross limit of €5,000 at the Deka Group level. As well as providing a description of the loss, the database includes documentation that covers the causes of the loss and suitable measures to avoid similar cases in the future. The results of the loss documentation are also used to support the ex-post validation of the risk assessments in the course of the self-assessment.

To determine the economic capital requirement for operational risks, the Deka Group uses an advanced measurement approach (AMA) that has been approved by regulatory authorities. This approach quantifies the Bank's operational risk based on a loss distribution approach, using the common methods described and external loss data to supplement the internal loss database.

Risk models are validated on both a regular and ad-hoc basis, and the results play an important role in assessing whether the models are adequate. Accordingly, any requirements for further development that arise from the validation procedure are then integrated into the process for identifying and quantifying risks. Overall, the validation exercises carried out confirm that the operational risk model is appropriate.

In addition to the macroeconomic stress tests, which cover all types of risk, specific stress scenarios are examined for operational risk. These involve, for example, a sharp deterioration in the reliability of IT infrastructure, the occurrence of serious fraud involving an internal employee or the failure of critical control processes due to a shortage of staff. Sensitivities to isolated stress factors are also analysed and the OR scenarios with the highest contribution to risk are examined. The results of the stress tests are determined quarterly and reported to the Stress Testing Committee, the Board of Management, the Risk and Credit Committee and the Administrative Board.

Current risk situation

The VaR for operational risk (confidence level of 99.9%, holding period of one year) increased moderately from €280m at year-end 2021 to €331m. In the ex-post perspective, risk-increasing effects resulted from another large number of observed loss events and from multiple events with large loss amounts. There was also an increase in risk in the ex-ante perspective due to adjusted assessments in the reporting period. These related partly to the remodelling of loss scenarios, for example for the risk of legal changes, and partly to relevant business environment factors considered by the scenario analyses, such as the significantly higher transaction volumes in some cases and the increased market volatility in connection with the war in Ukraine. The breakdown of VaR by business division (including the Treasury corporate centre), which is used for internal management purposes, revealed a slight shift towards the Capital Markets business division. This was due to the development of loss events observed.

Risk capital allocated to operational risk stood at €385m (year-end 2021: €350m). Utilisation of this amount was 86.0%. Utilisation thus remains at a non-critical level.

Value-at-Risk *€m (Fig. 31)*

	2020	2021	2022
Asset Management Securities business division	102	104	119
Asset Management Real Estate business division	51	50	60
Asset Management Services business division	62	68	78
Capital Markets business division	42	38	52
Financing business division	15	13	14
Treasury Corporate Centre	7	8	9
Total	**279**	**280**	**331**

At €79m, the OR loss potential identified in the Group-wide risk inventory was also higher than the figure for year-end 2021 (€69m). One key driver was the revision of loss scenarios for changes in the tax environment, which now also include extremely unlikely or hypothetical scenarios concerning the impacts on DekaBank in connection with share trades transacted around the dividend record date. In addition, the assessments of the likelihood of occurrence and expected loss amounts were adjusted for various risk events, taking into account the loss history actually observed. In particular, these include potential additional payments for the use of incorrectly or incompletely licensed market data, general contractual risks from the outsourcing of IT-related processes and activities, or, for instance, cases of fraud in connection with the procurement and purchasing of external services. In contrast to VaR, which is an upper limit for losses, with a specific probability that the limit will not be exceeded, loss potential is an expected value that results from the estimated frequency of occurrence and scale of losses of all OR scenarios in the Deka Group.

Loss potential *€m (Fig. 32)*

	2020	2021	2022
Asset Management Securities business division	10	9	10
Asset Management Real Estate business division	9	9	9
Asset Management Services business division	5	5	6
Capital Markets business division	7	7	14
Financing business division	4	4	3
Treasury Corporate Centre	1	1	1
Savings Banks Sales & Marketing	2	3	3
Corporate Centres	28	30	33
Total	**66**	**69**	**79**

In the loss documentation, a total of 22 major loss events, each with a loss amount of at least €100 thousand, were newly recorded for the reporting period in 2022. None were recorded retrospectively for previous periods. Measured in terms of the amount of total losses, legal risks accounted for by far the largest share, for example in the form of agreements to end legal disputes with business partners in the Capital Markets business division or additional payments to service providers due to differing interpretations of legal provisions in the relevant contracts. In terms of the number of cases, loss events in connection with process risk dominated again, as in the previous years, for example in the form of reimbursements to investment funds or customers due to process-related errors in the asset management business divisions.

On 15 July 2021, a revised Federal Ministry of Finance (BMF) circular dated 9 July 2021 was published on the tax treatment of share trades transacted around the dividend record date. Compared to the original BMF circular dated 17 July 2017, this BMF circular sets out more specific details regarding the requirements for relief from capital yields tax (*Kapitalertragsteuer*), as well as with regard to the legal consequences in the event of a refusal by tax authorities to allow relief for share trades transacted around the dividend record date. Based on the revised BMF circular of 9 July 2021 on the tax treatment of cum/cum transactions, tax risks exist in connection with relief from capital yields tax on share transactions made around the dividend record date in the years 2013 to 2015. All matters are reported in the Group management report and consolidated financial statements as at 31 December 2022 in accordance with DekaBank's interpretation of the relevant tax regulations and accounting standards.

In the past, transactions were concluded with business partners in connection with share trades transacted around the dividend record date, for which the tax office refused in full or in part to allow the relief from capital yields tax (*Kapitalertragsteuer*) claimed by these business partners. Corresponding agreements were reached with some of the business partners in 2022 to settle the matter. The resulting expenditure has been recognised in the amount of €42.2m in the annual financial statements as at 31 December 2022. There are plans to reach further such agreements with other affected business partners in 2023, which may result in further payments of approximately €30m. This amount could not be reported in the annual financial statements as at 31 December 2022, as the preconditions for recognition were not met.

In addition, DekaBank has begun voluntary investigations to ascertain whether its involvement enabled third parties to conduct share trades around the dividend record date and make use of abusive tax structures or whether it was otherwise involved in such structures. In light of ongoing investigations in relation to share trades transacted around the dividend record date, the Bank, in principle, faces the risk of a fine under section 30 of the Administrative Offences Act (*Ordnungswidrigkeitengesetz*) and confiscation of potential proceeds. Based on the findings of these investigations available to it, DekaBank considers it unlikely that the tax authority will be able to make a claim in relation to these matters beyond what has been recognised in the financial statements as at 31 December 2022 or that a fine or confiscation of proceeds will apply. The official search of DekaBank's premises, the further information obtained as part of the search and the further voluntary investigations conducted on the basis thereof do not change the assessment at the present time. The situation is being constantly reviewed.

Business risk

The business risk strategy set by the Board of Management sets out the Deka Group's guidelines for dealing with business risk and the requirements for risk management and control. It provides the necessary framework for the creation and operation of a Group-wide standardised system for identifying, monitoring and managing business risks and incorporating them into the risk-bearing capacity analysis. Various mutually complementary tools are used for this purpose.

Business risk is driven to a large extent by the fund business. In the Asset Management Securities, Asset Management Real Estate and Asset Management Services business divisions, value-at-risk is calculated based on the deviation in the business risk-relevant components of the economic result (i.e. a large part of net commission income and expenses) from the proportionate net income contribution for the following year.

Commission directly depends on total customer assets (for the Asset Management Securities business division and Asset Management Real Estate business division) or assets under custody (for the depositary in the Asset Management Services business division), which are among the elementary risk factors. Both the risk factors and net commission income depend on the behaviour of customers or sales partners as well as on changes in market conditions, legal requirements or competitive conditions.

Business risks are currently not material in the Capital Markets and Financing banking divisions or in the Treasury corporate centre and are therefore not included in the quantification of business risk.

Overall, the validation exercises carried out confirmed that the business risk model is appropriate.

In addition to regular risk measurement, risk type-specific stress tests are performed for business risk to examine its sensitivity in relation to changes in the behaviour of customers or sales partners, the economic and regulatory environment and competitive conditions. Major risk drivers have a negative impact on the corresponding risk factors and thus on the net commission income relevant for business risk. The risk type-specific stress scenarios for business risk were fundamentally revised, taking account of regulatory requirements, on the basis of the completed go-live of the new business risk model for all business divisions in the first quarter of 2022. In addition to equity stress (exceeding that already observed during the crisis), introduced due to the coronavirus pandemic, the hypothetical scenarios now also include the effects of concentrations and adverse conditions on the real estate market. A combined scenario was also introduced covering both concentrations and stress affecting margins and expenses. Alongside the hypothetical scenarios, the stress tests also continue to involve historical scenarios including market crashes akin to those seen after the terrorist attacks in 2001 or during the financial crisis in 2008, and now also during the coronavirus pandemic. The results of the stress tests are determined quarterly and the impacts examined. They serve primarily to identify areas for action.

In the year under review, the VaR for business risk increased significantly to €388m (year-end 2021: €176m). The significant increase in risk was mainly due to sharply increased volatility and lower total customer assets in the Asset Management Securities business division in the context of the Ukraine-Russia war and the current energy crisis. Updated planning figures in the Asset Management Securities, Asset Management Services and Asset Management Real Estate business divisions also led to a significant rise in risk. Meanwhile, changes in modelling for the Capital Markets and Financing banking divisions had a slightly risk-reducing effect. The risks here are not currently regarded as material and are therefore not included in the quantification of business risk. Risk capital allocated to business risk was reduced from €710m at the end of 2021 to €460m. Utilisation was 84.5% and thus at a high but non-critical level. Should further geopolitical events increase market volatility or the turnaround in interest rates result in shifts to lower-margin products, a further increase in business risk would not be ruled out.

Expanding on reputational risk

In an appendix to the risk strategy entitled "Leitplanken zum Management von Reputationsrisiken" (guidelines on the management of reputational risk), the Deka Group Board of Management has defined specific measures and processes for the management of reputational risk. For example, as part of the holistic approach to reputational risks, proactive reputational risk management processes, which are designed to facilitate the handling of reputational risk for relevant business processes, are complemented by portfolio-oriented reputational risk management. The latter aims to ensure transparency along with adequate capital and liquidity backing in the relevant risk types. Qualitative assessment of reputational risks as a basis for managing them takes place in both proactive and portfolio-oriented reputational risk management. It is performed by the risk-owning units in the first line of defence in accordance with standard, Group-wide criteria based on the risk appetite set, the potential losses and the probability of occurrence. If proactive reputational risk management identifies a critical level of risk, the first line of defence must obtain a second opinion on the activity from the second line of defence. In case of doubt, however, the first line of defence is also free to obtain a second opinion for less critical risks.

Reputational risks may arise directly from the business activity or as a result of events connected to other risk types and manifest themselves through their effect on business and liquidity risk.

Irrespective of its cause, reputational risk has an impact on the drivers of business risk and particularly on customer behaviour and sales performance.

A project has enhanced portfolio-oriented reputational risk management, which uses scenarios to identify potential reputational events and evaluates these qualitatively and quantitatively. As the basis for this work, the Risk Control corporate centre coordinates with the support of the Corporate Office & Communications corporate centre on an annual inventory and ad hoc updates for reputational risks in all units of the business divisions and corporate centres.

Appropriate scenarios are used to describe chains of reputational effects, which may affect the relevant risk drivers. To transparently illustrate reputational risks, which may arise from all business activities and have a potentially adverse impact on stakeholders, these risks will also be separately quantified in a scenario-based approach in future. First-time reporting on reputational risks quantified using this approach is planned in the course of 2023.

Other risks

Investment risk

Equity investments include all direct and indirect holdings of the Deka Group in other companies, regardless of their legal form. Equity investments held as credit substitute transactions fall under counterparty risk. In principle, the Deka Group pursues strategic interests when taking an equity interest. There is no intention to achieve short-term profit.

The basis for determining the investment risk position is the IFRS book value of the (unconsolidated) equity investment. The risk is measured on the basis of the volatility of a benchmark index from the equity market.

Overall, the validation exercises carried out confirmed that the investment risk model is appropriate.

The VaR of investment risk was €23m at year-end 2022, down significantly on the level at the end of the previous year (year-end 2021: €30m). The primary reason for the noticeable decline in risk was the disposal of an equity investment. Risk capital allocated to investment risk remained unchanged at €45m (year-end 2021: €45m). Utilisation of this amount at year-end was 51.7%. Large-scale impacts of the Ukraine-Russia war on investment risk have not been observed to date. However, negative effects cannot be completely ruled out in the still uncertain situation.

Annual financial statements

Balance sheet

Assets	€	€	€	31 Dec 2022 €	31 Dec 2021 €'000
1. Cash reserves					
a) Cash on hand			5,156.21		7
b) Balances with central banks			244,857,472.18	244,862,628.39	15,898,331
of which:					
with Deutsche Bundesbank	244,272,072.06				(15,896,244)
2. Due from banks					
a) due on demand			18,163,352,059.42		2,572,949
b) other claims			10,523,801,084.81	28,687,153,144.23	3,674,831
of which:					
public sector loans	63,328,778.98				(36,501)
3. Due from customers				25,389,850,229.15	24,760,972
of which:					
mortgage loans	1,879,938,724.22				(1,693,370)
public sector loans	3,579,488,913.66				(3,645,530)
4. Bonds and other fixed-interest securities					
a) Bonds and debt securities					
aa) from public sector issuers		1,146,307,434.38			2,110,715
of which:					
eligible as collateral with Deutsche Bundesbank	1,132,325,393.06				(2,097,560)
ab) from other issuers		8,425,076,189.86	9,571,383,624.24		6,665,938
of which:					
eligible as collateral with Deutsche Bundesbank	5,063,106,481.05				(3,605,163)
b) own bonds			237,871,546.59	9,809,255,170.83	189,536
Nominal amount	235,250,000.00				(188,812)
5. Shares and other non fixed-interest securities				589,058,881.16	585,654
6. Trading portfolio				34,222,240,069.03	32,730,420
7. Equity investments				22,014,436.27	26,174
of which:					
in banks	7,867,903.91				(7,868)
8. Shares in affiliated companies				466,574,651.70	509,316
of which:					
in banks	22,987,733.45				(22,988)
in financial services providers	20,177,351.02				(68,023)
9. Trust assets				214,073,427.98	154,170
10. Intangible assets					
a) Concessions, industrial property rights, and similar rights and values as well as licences there to, acquired for a consideration			11,257,997.00		10,366
b) Goodwill			174,623,332.00	185,881,329.00	202,093
11. Tangible assets				28,062,282.50	24,718
12. Other assets				200,604,740.58	237,255
13. Prepaid expenses and accrued income					
a) from underwriting and lending business			77,523,237.77		74,933
b) other			282,353,281.66	359,876,519.43	327,723
Total assets				**100,419,507,510.25**	**90,756,102**

Liabilities	€	€	€	31 Dec 2022 €	31 Dec 2021 €'000
1. Due to banks					
a) due on demand			2,940,793,931.73		1,408,465
b) with agreed maturity or period of notice			11,030,175,463.00	13,970,969,394.73	11,094,471
of which:					
registered mortgage Pfandbriefe	20,000,339.73				(20,000)
registered public sector Pfandbriefe	144,632,957.28				(248,312)
2. Due to customers					
Other liabilities					
a) due on demand			20,990,750,345.40		19,801,468
b) with agreed maturity or period of notice			4,987,193,406.61	25,977,943,752.01	3,938,995
of which:					
registered mortgage Pfandbriefe	0.00				(5,009)
registered public sector Pfandbriefe	566,338,105.29				(637,723)
3. Securitised liabilities					
a) bonds issued			10,624,113,336.10		7,291,203
of which:					
mortgage Pfandbriefe	392,197,749.31				(160,010)
public sector Pfandbriefe	2,804,501,299.79				(2,001,833)
b) other securitised liabilities			1,104,948,864.94	11,729,062,201.04	2,460,362
of which:					
Money market securities	1,104,948,864.94				(2,460,362)
4. Trading portfolio				39,902,393,999.29	36,295,241
5. Trust liabilities				214,073,427.98	154,170
6. Other liabilities				647,059,096.90	552,491
7. Accruals and deferred income					
a) from underwriting and lending business			14,351,572.65		23,202
b) other			282,085,579.81	296,437,152.46	178,628
8. Provisions					
a) provisions for pensions and similar obligations			104,276,312.12		31,471
b) provisions for taxes			101,952,609.60		142,163
c) other provisions			377,098,747.94	583,327,669.66	850,132
9. Subordinated liabilities				1,588,045,120.47	1,591,121
10. Fund for general banking risks				4,713,447,130.91	4,145,772
of which:					
special item pursuant to Section 340 e (4) HGB	350,035,000.00				(287,882)
11. Equity					
a) Subscribed capital			191,740,000.00		191,740
b) Capital reserve			239,479,816.06		239,480
c) other retained earnings			165,352,188.74		165,352
d) Net income			200,176,560.00	796,748,564.80	200,177
Total liabilities				**100,419,507,510.25**	**90,590,750**
1. Contingent liabilities					
Liabilities from guarantees and warranty agreements				5,772,985,197.69	5,427,572
2. Other liabilities					
Irrevocable lending commitments				1,149,930,860.16	1,415,132

Income statement

Expenses and income	€	€	€	2022 €	2021 €'000
1. Interest income from					
a) Lending and money market transactions		871,625,920.68			563,616
of which: negative interest income	25,562,183.23				(110,267)
b) Fixed-interest securities and debt register claims		113,763,064.14	985,388,984.82		92,754
2. Interest expenses			912,222,328.68	73,166,656.14	507,738
of which: positive interest expenses	78,253,949.81				(169,086)
3. Current income from					
a) Shares and other non fixed-interest securities			5,100,327.75		5,189
b) Equity investments			1,568,388.63		867
c) Shares in affiliated companies			434,605,583.89	441,274,300.27	38,023
4. Income from profit pooling, profit transfer and partial profit transfer agreements				525,468,641.23	568,616
5. Commission income			1,627,260,510.09		1,745,994
6. Commission expenses			1,279,813,012.84	347,447,497.25	1,406,912
7. Net income/expenses from trading portfolio				558,260,280.67	225,803
8. Other operating income				434,963,930.96	422,630
9. General administrative expenses					
a) Personnel expenses					
aa) Wages and salaries		361,344,028.51			338,579
ab) Social security contributions and expenses					
for pensions and other employee benefits		58,297,215.67	419,641,244.18		117,166
of which:					
for retirement pensions	14,661,023.37				(74,512)
b) Other administrative expenses			538,239,843.02	957,881,087.20	503,360
10. Write-downs and valuation allowances on intangible assets and tangible assets				41,032,053.27	37,474
11. Other operating expenses				207,641,489.26	61,761
12. Write-downs and valuation allowances on receivables and certain securities and allocations to provisions for loan losses				135,448,765.66	66,594
13. Allocations to the fund for general banking risks				505,645,047.46	160,594
14. Write-downs and valuation allowances on equity investments, shares in affiliates and securities held as fixed assets				31,335,526.49	0
15. Income from write-ups to equity investments, shares in affiliates and securities held as fixed assets				0.00	24,612
16. Expenses from loss transfer				11,536,115.10	8,907
17. Profit or loss on ordinary activities				490,061,222.08	479,017
18. Income taxes				289,884,662.08	278,841
19. Net income				200,176,560.00	200,177
20. Accumulated profit				**200,176,560.00**	**200,177**

Notes

General information

DekaBank Deutsche Girozentrale, Frankfurt/Berlin, is entered in Commercial Register A at the District Court of Frankfurt/Main under number HRA 16068.

1 Preparation of the annual financial statements

The annual financial statements of DekaBank Deutsche Girozentrale for the year ended 31 December 2022 have been prepared in accordance with the provisions of the German Commercial Code (*Handelsgesetzbuch* – HGB) and the Regulation on Accounting Principles Relating to Financial Institutions and Financial Services Institutions (*Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute* – RechKredV). The provisions of the Pfandbrief Act (*Pfandbriefgesetz*) were also taken into account. The balance sheet structure prescribed for commercial banks was expanded to include line items relating to banks active in the *Pfandbrief* business.

2 Accounting and valuation methods

General information

The accounting and valuation of assets, liabilities and pending transactions was carried out in accordance with sections 252 ff, and sections 340 ff, HGB. Write-ups were carried out in accordance with section 253 (5) HGB.

Amounts due from banks and customers are reported at face value. Differences between face value and amounts payable or acquisition costs were recognised under prepaid expenses and accrued income and written back as scheduled.

Liabilities are stated at the settlement amount. Differences between the amount received and the amount repayable were reported in accruals and deferred income and written back as scheduled.

For receivables and liabilities from genuine securities repurchase agreements and derivative transactions eligible for offsetting with central counterparties on the basis of standardised framework contracts, balance sheet offsetting is carried out provided that the corresponding preconditions are fulfilled. Securities lending transactions are reported in accordance with the principles of section 340b HGB applicable for genuine repurchase agreements, whereby lent securities are shown under the original line items in the balance sheet. Borrowed securities are not reported in the balance sheet.

Structured products in the trading portfolio and the liquidity reserve are recognised as a single financial instrument on the basis of their measurement at fair value less a risk mark-down (trading portfolio)/at the strict lower-of-cost-or-market principle (liquidity reserve). Structured liabilities are generally recognised at their settlement amount. There were no host contracts requiring separation as at the reporting date.

In accordance with the applicable EU Benchmark Regulation, further reference interest rates were replaced by a new reference interest rate in the reporting year. In 2022, implementation activities focused, in particular, on the lending business and related primarily to the USD LIBOR transition, as this interest rate benchmark will cease to apply in the near future. The changes were made at the start of a new interest period in each case. Alongside the process of transition for loans, further changes were made for derivatives, too, in 2022. Within this context, DekaBank received compensation payments mainly for derivatives in the trading portfolio and recognised these in full in profit or loss.

Valuation of securities portfolios and derivatives

Securities in the liquidity reserve are valued in accordance with the strict lower-of-cost-or-market principle, whereby the stock exchange or market price or the fair value is decisive.

The fair value of financial instruments in both the trading and non-trading portfolio is determined on the basis of market prices or observable market data as at the reporting date and recognised valuation models. Where securities and derivatives with sufficient liquidity are traded on active markets, and stock market prices or executable broker quotations are accordingly available, these prices are used to determine the fair value.

Valuation models which are deemed to be appropriate for the respective financial instruments are used where no prices are available from an active market. Observable market data is always used as the basis where available. However, the availability of observable stock market prices, valid prices or market data varies from financial instrument to financial instrument and can change over time. Furthermore, the valuation models are periodically readjusted and validated as required. Depending on the financial instrument and market situation, it may be necessary to include assumptions and assessments by the Bank in the valuation. The Bank also selects suitable modelling techniques, appropriate parameters and assumptions. The assumptions underlying financial valuation models can have a considerable effect on the fair value determined. Where there are no prices from active markets, the fair value is therefore deemed to be the model value as at the reporting date, which reflects a realistic estimate of how the market would probably value the financial instrument.

Derivative financial instruments are generally measured using recognised models such as the Black-Scholes model, the Black-76 model, the SABR model, the Bachelier model, the G1PP model, the G2PP model or the local volatility model. The models are always calibrated using observable market data.

Interest rate swaps and interest rate/currency swap agreements as well as unlisted interest rate futures are measured on the basis of the discounted cash flow model using the market interest rates applying to the remainder of the term of the financial instruments. The tenor structures of the individual interest rates are taken into account by means of separate forward yield curves. Discounting of interest rate swaps is always carried out using the respective currency-specific yield curves, which are also used for the corresponding bootstrapping of the forward yield curves. This is used for bootstrapping the forward yield curves. For the foreign currency cash flows in interest rate/currency swaps, discounting is carried out taking into account the cross-currency basis.

Fair values for forward currency contracts are determined at the reporting date on the basis of the forward rates, which in turn are quoted by FX swap points in the market.

Fair values of single name and index credit default swaps are determined using a standard hazard rate model calibrated to the respective par CDS spreads.

Financial instruments in the trading portfolio are valued at fair value less a risk mark-down. The mark-down is determined separately per portfolio in the form of the value-at-risk (VaR discount) and subsequently aggregated. The VaR calculation is based on a confidence level of 99% and a holding period of 10 days. The monitoring period amounts to 250 days. Trading portfolios on the assets and liabilities sides are valued at average prices.

On-balance sheet and off-balance sheet interest rate financial instruments in the banking book, which are allocated to the interest book, undergo loss-free valuation pursuant to IDW RS BFA 3. Where, in their entirety, the interest book transactions valued pose a threat of excess liability, a provision is recognised for possible losses from pending transactions. The valuation is carried out on the basis of a P&L-oriented approach including hypothetical closing-out transactions and future risk and administration costs. There was no excess liability at the reporting date; therefore, the recognition of a provision was not required.

Receivables and commitments arising from derivative financial instruments in the banking book, which are not allocated to the interest book, were valued in line with the imparity principle. For unrealised valuation losses, provisions were recognised for possible losses from pending transactions. Unrealised valuation gains were not recognised as income with the exception of foreign exchange future contracts, which are included as part of currency translation.

Trading raises money in the external market for funding purposes. Liabilities arising from these transactions are reported on the liabilities side under trading portfolio. Trading also carries out refinancing via internal transactions for management purposes.

In addition to the valuation results, the line item 'Net income from trading portfolio' includes ongoing interest payments and dividend income from securities in the trading portfolio, ongoing payments from derivative financial instruments and securities repurchase agreements and securities lending transactions in the trading portfolio, as well as the refinancing costs attributable to the trading portfolios including the corresponding deferrals. Allocations to the fund for general banking risks pursuant to section 340e (4) HGB are also recognised in this item.

When valuing OTC derivatives, the Bank also takes Credit Value Adjustments (CVAs) or Debit Value Adjustments (DVAs) into consideration in order to account for counterparty credit risk or the Bank's own credit risk, unless these are already included elsewhere in the valuation model. If a netting agreement exists for counterparties, the calculation is performed at the level of the counterparty based on the net position. In other cases, the calculation is performed using the individual positions. DekaBank also takes into account a Funding Value Adjustment (FVA), which captures the implicit market refinancing costs for uncollateralised derivative positions. The maturity structure of funding is thus considered to be an important component of fair value for uncollateralised derivatives.

Currency translation

Assets and liabilities in foreign currency as well as claims and obligations from foreign exchange transactions in the non-trading portfolio were translated and valued in accordance with the provisions of section 340h in conjunction with section 256a HGB and observing the Institute of Auditors (IDW) Comments on Accounting (*Stellungnahme zur Rechnungslegung*) IDW RS BFA 4. The results from currency translation are generally recognised in the income statement and reported in other operating income. The income is not recognised only in the case of foreign exchange transactions that are not included in any special cover or valuation unit and also have a remaining maturity of more than one year. Swap premiums from foreign exchange transactions in the non-trading portfolio, which hedge interest-bearing balance sheet items, were accrued on a pro rata basis and reported in net interest income because these forward foreign exchange transactions are valued at the split forward rate.

Special cover is in place if cover is available in the same currency, i.e. only transactions in the same currency are grouped in currency positions. Furthermore, matching amounts for the covering transaction and covered transaction constitute a defining characteristic of special cover. There is no special cover in place if foreign exchange transactions or foreign exchange positions (for example for trading purposes) are concluded and generate an open FX position.

Assets and liabilities in foreign currency in the trading portfolio as well as claims and obligations under foreign exchange transactions were translated and valued in accordance with the provisions of section 340e HGB. The results from the currency translation are reported in net income or net expenses in the trading portfolio.

Fixed assets

Equity investments, shares in affiliated companies, tangible assets and intangible assets are stated at their acquisition or production cost less any scheduled amortisation or depreciation. Where a loss of value is expected to be permanent, the asset is written down to its lower fair value. Economic assets within the meaning of section 6 (2) of the Income Tax Act (*Einkommensteuergesetz* – EStG) are written off in the year of acquisition in accordance with tax regulations.

Securities portfolios intended to be held long-term and for use in business operations on a permanent basis, were treated as fixed assets and valued according to the moderate lower-of-cost-or-market principle. These securities are continually checked for impairment.

Provisions for loan losses

Identified default risks in the lending business were adequately provided for by recognising specific valuation allowances and provisions for loan losses. There are sufficient general valuation allowances to cover latent credit risks. Specific and general valuation allowances for on-balance sheet lending have been deducted from the respective asset items. Provisions have been recognised for lending commitments and guarantees.

Loan receivables are checked individually for impairment. In the case of receivables for which there are no specific valuation allowances, the default risk is taken into account by recognising general valuation allowances.

The Institute of Auditors (IDW) Comments on Accounting (*Stellungnahme zur Rechnungslegung*) IDW RS BFA 7, risk provisions for foreseeable, not yet individually specified counterparty default risks in banks' lending business ("general valuation allowances") is to be applied to financial statements for financial years starting after 31 December 2021. This resulted in the following change in the valuation method in the 2022 financial year:

When calculating general valuation allowances for loan receivables, a distinction is made between two stages: At stage 1, loss allowances are recognised in the amount of the expected loss for the next twelve months, unless the risk of default has significantly increased. Stage 2 is used to recognise loss allowances in the amount of the expected loss over the entire remaining life of the loan receivable if the risk of default has increased significantly.

Loan receivables that are not already impaired upon initial recognition are generally allocated to stage 1 and risk provisions are recognised in profit or loss in the amount of the expected loss for the next twelve months. If the default risk has significantly increased since the loan receivable was added, it is allocated to stage 2 and the lifetime expected credit loss is recognised in profit or loss.

Within DekaBank, significant increases in default risk since the initial recognition of a loan receivable are assessed on the basis of quantitative and qualitative criteria, as well as based on the assessments performed by the units and committees responsible for early risk identification. A significant risk increase is assumed where the credit rating has dropped by a specified amount relative to the initial rating on the first balance sheet date, or where the exposure has been classified as requiring intensive support. A loan is classified as requiring intensive support, in particular, in cases involving non-compliance with contractual agreements providing concrete indications of an acute threat to debt servicing capabilities in the long term, as well as in the event of certain rating downgrades or repayment deferrals if the circumstances of the individual case call for intensive support. The 12-month probability of default is used to assess the rating downgrade and adequately reflects the change in the risks expected over the remaining term of the asset. In addition, for loan receivables where payment is more than 30 days overdue, a check is also made as to whether the presumption of a significant increase in default risk can be rebutted. This involves an analysis of the individual case, which is submitted to the Monitoring Committee so that a decision can be made. If the assumption of a significant increase in default risk cannot be refuted, these transactions are also assigned to stage 2.

Changes in general valuation allowances recognised in profit or loss are reported under 'Write-downs and valuation allowances on receivables and certain securities and allocations to provisions for loan losses' or under 'Income from write-ups on receivables and certain securities and from the reversal of provisions for loan losses'.

If there is doubt regarding the recoverability of a receivable, this is taken into account through the recognition of provisions for loan losses. If it is highly probable that further payments will not be paid, the receivable is classified as irrecoverable. An irrecoverable receivable which has already been impaired is written off utilising the provision for loan losses. If there is no specific valuation allowance, the receivable is written off directly and charged to profit or loss. Direct write-downs are also carried out if the Bank waives parts of a non-impaired receivable or sells a receivable for less than its carrying value.

Specific valuation allowances are recognised to take account of acute default risks if it is likely that not all contractually agreed payments of interest and principal can be made. Specific valuation allowances are assumed in the following cases:

- significant financial difficulties on the part of the issuer or debtor
- an actual breach of contract (such as a default or past-due event)
- concessions granted by the lender to the debtor for economic or contractual reasons in connection with the debtor's financial difficulties that the creditor would not otherwise consider
- a high probability that the borrower will enter bankruptcy or other financial reorganisation
- the disappearance of an active market for the financial asset because of financial difficulties
- the purchase or origination of a financial asset at a deep discount that reflects the incurred credit losses.

Provisions

For pension commitments, the extent of the obligation is valued by independent actuaries. In these cases, the present value of the pension entitlements earned is determined at each closing date using the projected unit credit method. For fund-linked pension commitments, the level of which is determined exclusively in accordance with the fair value of the corresponding fund assets, the pension commitments are stated at the fair value of the underlying funds where this value exceeds an agreed minimum amount.

In accordance with section 246 (2) HGB, plan assets, which are required to be offset against the related obligations, were created for the company retirement pensions of DekaBank in the form of a Contractual Trust Arrangement (CTA). These are held by a legally independent trustee – Deka Trust e.V. The plan assets for the unit-linked defined contribution plans consist primarily of fund assets allocated per individual employee and other assets to cover both the biometric risks arising from benefits becoming due early and the additional financing risk. In addition, commitments under final salary plans and general contribution schemes were funded through the creation of ring-fenced plan assets using a CTA. This section of the plan assets is invested in a special fund with an investment strategy based on an integrated asset-liability assessment. The plan assets are measured at fair value and reduce the pension provisions shown in the balance sheet. The expected income from the plan assets is offset against the expenses for accumulated interest on pension commitments.

Commitments for early retirement and transitional payments as well as obligations to pay other allowances are also valued actuarially, and provision is made in the amount of the present value of the commitment. Furthermore, employees of DekaBank also have the option of paying into working hours accounts. The accounts are maintained in money and covered by plan assets in Deka Trust e.V. The amount carried in the balance sheet is the difference between the extent of the commitments and the fair value of the plan assets. Provisions for early retirement and transitional payments as well as for working hours accounts are reported under ‘Other provisions’.

Provisions for taxes and other provisions were recognised in the settlement amount (including future cost and price increases) required according to a reasonable commercial judgement. Medium- and long-term provisions with remaining terms of more than one year were discounted using the interest rates published by Deutsche Bundesbank pursuant to section 253 (2) HGB.

Deferred taxes

Deferred tax assets are not reported, since the existing asset surplus, utilising the option under section 274 HGB, is not recognised. Deferred tax assets result primarily from measurement differences in relation to shares and non-fixed interest securities, as well as pension provisions. As at the reporting date, there were no measurement differences between the financial statements and the tax base leading to the recognition of deferred tax liabilities. DekaBank’s combined tax rate (31.9%) is used to measure deferred taxes.

3 Derivative transactions

DekaBank uses derivative financial instruments for trading purposes and to hedge interest rate risks, currency risks and other price risks.

Derivative transactions – volume – trading portfolio

	Nominal value		Full fair values positive market values		Full fair values negative market values	
€m	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**
Interest rate risks						
OTC products						
Interest rate swaps	493,259.8	492,480.4	28,785.2	10,165.3	29,659.6	9,812.1
Forward rate agreements	80,186.0	138,163.0	81.9	7.3	75.5	7.9
Interest rate options						
Purchases	26,290.0	20,673.5	593.8	400.4	191.8	176.9
Sales	30,169.7	25,677.0	320.5	335.4	935.6	681.5
Caps, floors	25,763.7	23,608.2	226.0	66.0	470.1	64.1
Other interest rate futures	3,351.6	4,944.9	247.1	34.5	8.8	37.0
Exchange traded products						
Interest rate futures/ options on interest rate futures	45,561.0	14,339.1	21.7	5.1	53.8	5.2
Total	**704,581.8**	**719,886.1**	**30,276.2**	**11,014.0**	**31,395.2**	**10,784.7**
Currency risks						
OTC products						
Foreign exchange future contracts	13,142.8	10,463.5	132.6	51.7	131.3	52.4
Interest rate/currency swaps	1,021.9	1,483.7	17.5	33.5	29.9	39.6
Currency options						
Purchases	–	–	–	–	–	–
Sales	–	–	–	–	–	–
Total	**14,164.7**	**11,947.2**	**150.1**	**85.2**	**161.2**	**92.0**
Share and other price risks						
OTC products						
Share options						
Purchases	2,272.0	563.7	454.4	77.4	–	–
Sales	2,538.7	435.0	–	–	466.0	45.7
Credit derivatives	12,337.3	8,885.9	261.3	120.0	65.9	133.7
Other forward contracts	5,717.1	5,793.2	46.8	50.4	363.3	78.8
Exchange traded products						
Share options	35,659.0	33,987.1	1,492.7	1,347.7	1,731.5	1,735.5
Share futures	270.2	522.9	9.6	13.8	7.0	6.0
Total	**58,794.3**	**50,187.8**	**2,264.8**	**1,609.3**	**2,633.7**	**1,999.7**
Sub-total	**777,540.8**	**782,021.1**	**32,691.1**	**12,708.5**	**34,190.1**	**12,876.4**
Amount carried in the statement of financial position:			8,497.3	6,245.3	13,099.4	5,908.1

The lower carrying amount of derivatives in the trading portfolio compared with market values is due to the offsetting of market values against the variation margin. Within assets, the variation margin received reduced the fair values by a total of around €24.2bn (previous year: €6.4bn). On the other hand, the paid variation margin reduced market values on the liabilities side by around €21.1bn (previous year: €7.0bn).

Derivative transactions – classification by maturities (nominal values) – trading portfolio

	Interest rate risks		Currency risks		Share and other price risks	
€m	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**
Residual term to maturity						
less than 3 months	77,866.3	76,966.7	6,709.9	6,064.3	4,093.6	5,512.0
> 3 months to 1 year	111,824.7	147,454.1	6,645.0	4,645.7	17,678.5	15,479.1
> 1 year to 5 years	255,020.0	230,435.8	382.5	775.9	33,074.5	26,045.8
> than 5 years	259,870.8	265,029.5	427.3	461.3	3,947.7	3,150.9
Sub-total	**704,581.8**	**719,886.1**	**14,164.7**	**11,947.2**	**58,794.3**	**50,187.8**

Derivative transactions – classification by counterparties – trading portfolio

	Nominal value		Full fair values positive market values		Full fair values negative market values	
€m	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**
Banks in the OECD	612,806.2	591,322.5	21,467.9	8,786.4	26,732.9	8,981.3
Public sector entities in the OECD	17,484.1	14,019.0	1,599.7	1,512.3	260.3	184.4
Other counterparties	147,250.5	176,679.6	9,623.5	2,409.8	7,196.9	3,710.7
Sub-total	**777,540.8**	**782,021.1**	**32,691.1**	**12,708.5**	**34,190.1**	**12,876.4**

Derivative transactions – volume – non-trading portfolio

	Nominal value		Full fair values positive market values		Full fair values negative market values	
€m	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**
Interest rate risks						
OTC products						
Interest rate swaps	58,366.7	47,059.7	1,938.5	682.1	1,236.3	637.1
Forward rate agreements						
Interest rate options						
Purchases	54.9	–	2.0	–	–	–
Sales	163.0	–	–	–	1.5	–
Caps, floors	–	–	–	–	–	–
Other interest rate futures	24.8	–	–	–	–	–
Exchange traded products					**–**	
Interest rate futures/ options on interest rate futures	60.3	69.9	0.8	0.2	–	0.4
Total	**58,669.7**	**47,129.6**	**1,941.3**	**682.3**	**1,237.8**	**637.5**
Currency risks						
OTC products						
Foreign exchange future contracts	4,497.1	3,142.5	23.9	4.6	14.8	21.9
Interest rate/currency swaps	12,483.3	12,156.2	136.7	74.0	554.6	360.6
Currency options						
Purchases	–	–	–	–	–	–
Sales	–	–	–	–	–	–
Total	**16,980.4**	**15,298.7**	**160.6**	**78.6**	**569.4**	**382.5**
Share and other price risks						
OTC products						
Share options						
Purchases	442.0	450.0	13.9	6.8	–	–
Sales	–	–	–	–	–	–
Credit derivatives	–	–	–	–	–	–
Exchange traded products					**–**	
Share options	112.5	112.5	0.4	1.7	–	–
Share futures	16.8	13.1	0.6	–	–	0.4
Total	**571.3**	**575.6**	**14.9**	**8.5**	**–**	**0.4**
Sub-total	**76,221.4**	**63,003.9**	**2,116.8**	**769.4**	**1,807.2**	**1,020.4**

Derivatives in the non-trading portfolio are generally valued individually in line with the imparity principle. Provisions for possible losses from pending derivative transactions are generally established by recognition of negative market values; on the other hand, a claim surplus is not capitalised. Derivatives allocated to the interest book undergo loss-free valuation pursuant to IDW RS BFA 3 together with other financial instruments of the interest book. Against this background, the above-mentioned market values are not the carrying values of derivatives in the non-trading portfolio. Paid or received option premiums and margins for derivative financial instruments of the non-trading portfolio are recognised under 'Other assets' or 'Other liabilities'.

Furthermore, a provision for possible losses in the amount of €8.1m was recognised as at the reporting date.

Under EU Regulation No. 648/2012 (EMIR), there is a requirement to perform certain OTC derivative transactions through a central counterparty. The daily settlement of gains and losses to be carried out in this process (variation margin) results in a net liability for the non-trading portfolio of €578.2m. This is recognised in amounts 'Due to customers'.

Derivative transactions – classification by maturities (nominal values) – non-trading portfolio

	Interest rate risks		Currency risks		Share and other price risks	
€m	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**
Residual term to maturity						
less than 3 months	10,134.9	17,478.7	4,320.0	3,257.1	16.8	13.1
> 3 months to 1 year	9,333.4	2,716.8	1,317.7	1,264.3	554.5	450.0
> 1 year to 5 years	25,768.3	15,268.5	8,168.8	7,485.3	–	112.5
> than 5 years	13,433.1	11,665.6	3,173.9	3,292.0	–	–
Sub-total	**58,669.7**	**47,129.6**	**16,980.4**	**15,298.7**	**571.3**	**575.6**

Derivative transactions – classification by counterparties – non-trading portfolio

	Nominal value		Full fair values positive market values		Full fair values negative market values	
€m	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2021**
Banks in the OECD	60,294.5	46,200.7	1,394.1	255.4	1,604.5	568.8
Other counterparties	15,926.9	16,803.2	722.7	514.0	202.7	451.6
Sub-total	**76,221.4**	**63,003.9**	**2,116.8**	**769.4**	**1,807.2**	**1,020.4**

The derivative financial instruments shown in the tables above are exposed to both market price risks and credit risks. Market price risks describe the potential financial loss caused by future fluctuations in market parameters. Market price risks comprise interest rate risks (including credit spread risks), currency risks and share price risks. DekaBank defines credit risk as the risk that a borrower, issuer or counterparty will not fulfil their contractually agreed obligations or fulfil them in a timely manner and that DekaBank will incur a financial loss as a result. Further information can be found in the risk report, which forms part of the Management Report.

4 Statement of subsidiaries and equity investments in accordance with section 285 no. 11 HGB

Name, registered office	Share of equity %	Equity[1] €'000	Result[2] €'000
Shares in affiliated companies			
Deka Verwaltungsgesellschaft Luxembourg S.A., Luxembourg	100.00	558,209.3	74,078.6
Deka Investment GmbH, Frankfurt/Main	100.00	93,183.1	352,595.9[3]
Deka Immobilien Investment GmbH, Frankfurt/Main	100.00	70,009.7	91,314.4[3]
S Broker AG & Co. KG, Wiesbaden	100.00	57,297.7	14,202.8
Deka Vermögensmanagement GmbH, Frankfurt/Main	100.00	26,960.0	28,332.2[3]
IQAM Invest GmbH, Salzburg	100.00	6,664.4	1,138.7
Deka Beteiligungsgesellschaft mbH, Frankfurt/Main	100.00	3,448.4	–220.3
bevestor GmbH, Frankfurt/Main	100.00	3,600.0	–10,535.6[3]
Deka Vermögensverwaltungs GmbH, Frankfurt/Main	100.00	365.4	–992.5[3]
Deka Investors Spezial InvAG m.v.K. u. TGV (TGV Unternehmensaktien), Frankfurt/Main	100.00	221.1	–9.3
IQAM Partner GmbH, Vienna	100.00	478.9	282.2
Deka Treuhand GmbH, Frankfurt/Main	100.00	184.7	15.8
IQAM Research der DekaBank GmbH (formerly Privates Institut für quantitative Kapitalmarktforschung der DekaBank GmbH), Frankfurt/Main	100.00	49.3	–0.9[3]
LBG Leasing Beteiligungs-GmbH, Frankfurt/Main	100.00	30.0	–0.8
Deka Treuhand Erwerbsgesellschaft mbH, Frankfurt/Main	100.00	25.0	–9.0[3]
SWIAT GmbH, Frankfurt/Main	100.00	25.0	0.0
Deka Vorratsgesellschaft 03 mbH, Frankfurt/Main	100.00	24.8	–0.8[3]
Deka Vorratsgesellschaft 04 mbH, Frankfurt/Main	100.00	24.8	–0.8[3]
Deka Vorratsgesellschaft 05 mbH, Frankfurt/Main	100.00	24.8	–0.8[3]
WestInvest Gesellschaft für Investmentfonds mbH, Düsseldorf	99.74	11,338.6	54,076.2[3]
WIV GmbH & Co. Beteiligungs KG, Frankfurt/Main	94.90	12,824.5	724.5
WIV Verwaltungs GmbH, Frankfurt/Main	94.90	81.2	3.1
Equity investments			
Dealis Fund Operations GmbH i.L., Frankfurt/Main	50.00	32,865.4	–47.0
S-PensionsManagement GmbH, Cologne	50.00	28,164.8	857.5
Deka-Neuburger Institut für wirtschaftsmathematische Beratung GmbH, Frankfurt/Main	50.00	21.2	0.3
Indirect shares in affiliated companies			
Deka International S.A., Luxembourg	100.00	154,085.4	76,622.0
Deka Real Estate International GmbH, Frankfurt/Main	100.00	5,700.4	1,419.4
Deka Far East Pte. Ltd., Singapore	100.00	4,024.6	408.4
Deka Real Estate Services USA Inc., New York	100.00	3,562.2	744.3
S Broker Management AG, Wiesbaden	100.00	920.1	865.1

Name, registered office	Share of equity %	Equity[1] €'000	Result[2] €'000
Indirect equity investments			
Sparkassen Pensionskasse AG, Cologne	50.00	93,477.0	1,981.7
Sparkassen Pensionsfonds AG, Cologne	50.00	3,586.3	299.2
Heubeck AG, Cologne	30.00	5,712.7	1,520.4
Richttafeln-Unterstützungskasse GmbH, Cologne	30.00	155.8	–21.8
Dr. Heubeck Ges. mbH, Viena	30.00	258.3	36.6
Heubeck Richttafeln GmbH, Cologne	30.00	66.5	–18.3
HEUBECK pen@min GmbH (formerly Compendata Gesellschaft zur Verwaltung von Versorgungseinrichtungen mbH), Cologne	30.00	304.5	196.7
DPG Deutsche Performancemessungs-Gesellschaft für Wertpapierportfolios mbH, Frankfurt/Main	22.20	3,570.7	273.5

[1] Definition of equity according to Section 266 (3 A) in conjunction with Section 272 HGB.
[2] Net profit/net loss according to Section 275 (2) No. 20 HGB
[3] A profit transfer agreement has been concluded with these companies.

Off-balance sheet contingent liabilities

5 Letter of comfort

Except in the case of political risk, DekaBank will ensure that the subsidiary included in the consolidated financial statements, Deka Verwaltungsgesellschaft Luxembourg S.A., Luxembourg, can meet its commitments.

6 Other financial commitments

There are contribution commitments amounting to €0.1m with regard to companies in which the Bank has invested (previous year: €0.1m).

There is an additional funding obligation for the deposit protection reserve of the *Landesbanken* and *Girozentralen* of €41.2m (previous year: €53.1m). By 2024, the assets of the deposit guarantee scheme must be increased to the statutory target level of 0.8% of the covered deposits of its member institutions. The deposit guarantee scheme collects annual levies from its members for this purpose.

Together with a subsidiary, DekaBank uses a liquidity waiver in accordance with Article 8 CRR. Within this context, an agreement has been concluded between the two companies which ensures a free flow of financial resources between them.

Notes to the balance sheet

7 Due from banks

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Receivables		
to affiliated companies	0.3	–
to companies in which an interest is held	130.6	52.1
Subordinated loans	–	–
Sub item b (other claims) – breaks down according to residual term to maturity as follows:		
less than 3 months	3,704.2	1,094.0
> 3 months to 1 year	2,840.6	1,171.4
> 1 year to 5 years	3,561.6	1,108.2
> than 5 years	417.4	301.2
	10,523.8	**3,674.8**
Used as cover funds	**136.0**	**23.3**

8 Due from customers

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Receivables		
to affiliated companies	995.6	595.1
to companies in which an interest is held	0.2	8.7
Subordinated loans	–	–
This item – Due to customers – breaks down by residual term to maturity as follows:		
with indefinite term to maturity	2,598.6	2,271.2
less than 3 months	1,097.3	737.9
> 3 months to 1 year	1,951.0	2,468.5
> 1 year to 5 years	11,934.1	11,390.3
> than 5 years	7,808.8	7,893.1
	25,389.8	**24,761.0**
Used as cover funds	**5,181.6**	**4,955.4**

9 Bonds and other fixed-interest securities

€m	31 Dec 2022	31 Dec 2021
This item includes:		
marketable securities		
listed	8,899.1	8,015.6
unlisted	910.2	950.6
Subordinated securities	**–**	**–**
Securities due within one year	**2,305.2**	**1,774.4**
Used as cover funds	**448.7**	**466.7**
Book value of securities valued according to the moderate-lower-of-cost-or-market principle	7,475.7	5,082.1
Book value of securities reported at more than fair value	7,249.7	621.8
Market value of securities reported at more than fair value	6,783.2	617.3

The Bank intends to hold those securities allocated to the ‘Securities held as fixed assets’ category on a permanent basis. These securities are valued under the moderate lower-of-cost-or-market principle. The current value fluctuations are not assessed as permanent and repayment in full is expected on maturity.

The securities measured at the moderate lower-of-cost-or-market principle were distinguished from the securities measured at the strict lower-of-cost-or-market principle on the basis of the category applied in the portfolio.

10 Shares and other non-fixed interest securities

€m	31 Dec 2022	31 Dec 2021
This item includes:		
marketable securities		
listed	–	–
unlisted	39.1	39.1
Subordinated securities	**–**	**–**

11 Trading portfolio (assets)

This item breaks down as follows:

€m	31 Dec 2022	31 Dec 2021
Derivative financial instruments	8,497.3	6,245.3
Receivables	16,462.7	14,403.6
Debt securities and other fixed-interest securities	7,768.0	8,624.9
Shares and other non fixed-interest securities	1,211.1	3,422.4
Other assets	324.4	75.2
Risk mark-down	–41.3	–41.0
Sub-total	**34,222.2**	**32,730.4**

12 Equity investments

As in the previous year, this item does not include any marketable securities.

13 Shares in affiliated companies

As in the previous year, this item does not include any marketable securities.

14 Trust assets

The reported trust assets comprise amounts due from banks of €82.9m and amounts due from customers of €131.1m.

15 Tangible assets

This item comprises plant and equipment amounting to €28.1m (previous year: €24.0m).

16 Changes in fixed assets

Development in intangible assets and property, plant and equipment

€m						Carrying value	
Asset items	**Cost of acquisition/ production**	**Additions**	**Disposals**	**Accumulated depreciation**	**Depreciation for the year**	**31 Dec 2022**	**31 Dec 2021**
Intangible assets	355.7	6.6	0.0	176.4	33.2	185.9	212.5
Property, plant and equipment	57.1	11.9	0.0	40.9	7.8	28.1	24.7
Sub-total	**412.8**	**18.5**	**0.0**	**217.3**	**41.0**	**214.0**	**237.2**

Development in equity investments, shares in affiliated companies and securities

€m	01.01.2022	Changes +/– [1]	31.12.2022
Equity investments	26.2	–4.2	22.0
Shares in affiliated companies	509.3	–42.7	466.6
Securities held as fixed assets	5,082.1	2,393.6	7,475.7
Sub-total	**5,617.6**		**7,964.3**

[2] The aggregation option under Section 34 (3) RechKredV was utilised.

The goodwill reported under intangible assets relates to the business activities of DekaBank Deutsche Girozentrale Niederlassung Luxemburg acquired in 2020. It is amortised over an average useful life of ten years. In determining the useful life, it was assumed that business activities will continue unchanged. Goodwill amounted to €174.6m as of 31 December 2022 (previous year: €202.1m). No significant changes are expected for the future development of the sector or the company.

17 Other assets

€m	31 Dec 2022	31 Dec 2021
This item includes amongst others:		
Tax refund claims	97.9	96.8
Premiums paid and margins for derivative financial instruments	21.6	18.3

18 Prepaid expenses and accrued income

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Premium/discount from underwriting and lending business	77.5	74.9
Prepaid expenses and accrued income – derivative financial instruments	249.0	304.0

19 Genuine repurchase agreements

As at 31 December 2022, the book value of lent securities or securities sold under repurchase agreements amounts to €1,978.9m (previous year: €1,549.6m). Pass-through securities lending transactions of €7,075.2m (previous year: €6,434.9m) were also carried out.

20 Collateral transfer for own liabilities

As well as the receivables serving as the cover pool for issued covered bonds (*Pfandbriefe*), assets were also transferred as collateral in the following amounts for the following own liabilities:

€m	31 Dec 2022	31 Dec 2021
Due to banks	571.6	207.0
Due to customers	89.2	165.2
Trading portfolio (liabilities)	6,681.1	10,782.0

The collateral was provided mainly for borrowings as part of genuine repurchase agreements and for open market transactions with Deutsche Bundesbank. In addition, securities with a book value of €3,359.8m (previous year: €2,863.7m) were pledged as collateral for transactions on German and foreign futures exchanges.

21 Investment shares

€m	Carrying value 31 Dec 2022	Market value 31 Dec 2022	Difference market value – carrying value	Distribution 2022	Daily redemption possible	Omitted depreciation
Equity funds	14.9	15.3	0.4	0.1	Yes	No
Bond funds	67.6	67.6	0.0	2.9	Yes	No
Mixed funds	448.1	607.6	159.5	–	Yes	No
Funds of funds	1.7	1.7	0.0	–	Yes	No
Sub-total	**532.3**	**692.2**	**159.9**	**3.0**		

22 Due to banks

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Liabilities		
to affiliated companies	126.5	241.5
to companies in which an interest is held	71.7	–
Sub item b (with agreed maturity or period of notice) breaks down by residual term to maturity as follows:		
less than 3 months	3,294.5	3,745.1
> 3 months to 1 year	3,017.1	1,204.8
> 1 year to 5 years	3,885.8	5,205.7
> than 5 years	832.8	938.9
	11,030.2	**11,094.5**

23 Due to customers

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Liabilities to		
affiliated companies	1,362.2	1,372.3
companies in which an interest is held	11.7	112.6
Sub item b (with agreed maturity or period of notice) breaks down by residual term to maturity as follows:		
less than 3 months	1,867.0	1,274.6
> 3 months to 1 year	1,435.3	404.1
> 1 year to 5 years	859.8	1,354.4
> than 5 years	825.1	905.9
	4,987.2	**3,939.0**

24 Securitised liabilities

€m	31 Dec 2022	31 Dec 2021
Proportion of sub item a (issued bonds) maturing in the following year	**1,645.3**	**646.5**
Sub item b (other securitised liabilities) breaks down by residual term to maturity as follows:		
less than 3 months	1,104.9	2,460.4
	1,104.9	**2,460.4**

25 Trading portfolio (liabilities)

This item breaks down as follows:

€m	31 Dec 2022	31 Dec 2021
Derivative financial instruments	13,099.4	5,908.1
Liabilities	26,803.0	30,387.1
Sub-total	**39,902.4**	**36,295.2**

26 Trust liabilities

Trust liabilities comprise €82.9m in amounts due to banks and €131.1m in amounts due to customers.

27 Other liabilities

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Foreign exchange equalisation items	354.7	237.1
Bonuses for sales offices	114.4	184.6
Trade payables	82.7	61.4
Share of profit attributable to atypical silent partners	5.9	4.5
Due to custodial customers	2.3	1.6

28 Accruals and deferred income

€m	31 Dec 2022	31 Dec 2021
This item includes:		
Premium/discount from underwriting and lending business	14.4	23.2
Prepaid expenses and accrued income – derivative financial instruments	282.1	178.6

29 Provisions for pensions and similar commitments

Pension provisions were calculated using the Heubeck mortality tables 2018 G based on the following actuarial parameters:

in %	31 Dec 2022	31 Dec 2021
Pension trend for adjustments according to Section 16 (2) Company Pensions Fund Act (BetrAVG)	2.20	1.75
Pension adjustment with overall trend updating	2.00	2.00
Salary trend	2.50	2.50

The above parameters are not relevant for the valuation of unit-linked pension commitments as these are not dependent on the final salary.

For non-vested projected benefits, staff turnover profiles published by Heubeck Richttafeln GmbH are also used in the calculation with a level parameter of 1.5.

Provisions for pensions and similar commitments are discounted at the average market interest rate of the past 10 years published by Deutsche Bundesbank for an assumed residual time to maturity of 15 years. This interest rate stands at 1.78%. The difference arising under section 253 (6) sentence 1 HGB between the amount of provision recognised when discounting using an average market interest rate of the past 10 financial years, and the provision amount when discounting using an average market rate of the past seven financial years (1.44%), is €29.7m. The amount is not, however, blocked for distribution in accordance with section 253 (6) sentence 2 HGB, since the free reserves of the company exceed this figure.

€m	31 Dec 2022	31 Dec 2021
Provisions for pensions	**104.3**	**31.5**
Acquisition cost of plan assets	365.2	357.8
Fair value of plan assets	534.1	601.4
Settlement amount of offset liabilities	638.4	632.8
Income from plan assets	–73.6	71.6
Expenses for accumulated interest	11.7	12.8
Excess of plan assets over pension liabilities	**0.0**	**0.0**

The valuation of cover assets at fair value produces an amount that exceeds the historical cost of these assets of €168.9m, which is, however, not blocked for distribution in accordance with section 268 (8) HGB, since the free reserves of the company exceed this figure.

30 Provisions

€m	31 Dec 2022	31 Dec 2021
Provisions in investment funds business	79.1	498.7
Provisions for restructuring measures	–	0.8
Provisions for legal risks	6.3	13.9
Provisions for credit risks	12.7	2.9
Provisions for operational risks	7.9	4.3
Provisions in human resources	139.8	130.9
Sundry other provisions	131.3	198.6
Sub-total	**377.1**	**850.1**

DekaBank performed voluntary investigations to ascertain whether its involvement enabled third parties to conduct share trades around the dividend record date and make use of abusive tax structures or whether it was otherwise involved in such structures. The possibility of a claim in the amount of €6.7m being asserted against DekaBank in this regard due to its function as custodian cannot be ruled out in all probability. As a result, a provision for operational risks was set up in the amount of €3.8m as at 31 December 2020. As at 31 December 2022, the amount of the provision was increased by €2.9m to €6.7m based on further analyses. No further risks in this regard were evident as at 31 December 2022. The official search of DekaBank's premises, the additional information obtained as part of the search and further voluntary investigations carried out on this basis do not change the assessment at the present time. The situation is being constantly reviewed.

Provisions for legal risks relate primarily to the ruling by the German Federal Court of Justice (BGH) on 27 April 2021, rendering amendments to the General Terms and Conditions of Business (GTCs) concerning fee adjustments partially ineffective. At the reporting date, there are provisions for legal risks in the amount of €5.2m (previous year: €12.6m) for potential claims for the repayment of fees.

31 Subordinated liabilities

€m	31 Dec 2022	31 Dec 2021
Expenses from subordinated liabilities	65.3	62.6
Accrued interest on subordinated liabilities	38.9	42.0

The borrowings below exceed 10% of the total amount of subordinated liabilities:

Issue	Nominal amount €m	Year of issue	Interest rate % p.a.	Maturity
AT 1	177.4	2022	3.63	--
AT 1	125.0	2021	3.20	--
AT 1	296.2	2014	5.20	--

An additional AT1 bond in the amount of €177.4m was issued in the reporting year.

The conversion of these funds into capital or another form of debt has not been agreed and is not planned. There is no early repayment obligation.

32 Equity

The breakdown of equity (excluding profits intended for distribution) is as follows:

€m	31 Dec 2022	31 Dec 2021
a) Subscribed capital	191.7	191.7
b) Capital reserve	239.5	239.5
c) Other retained earnings	165.4	165.4
Balance sheet equity	**596.6**	**596.6**

33 Contingent and other liabilities

The off-balance sheet contingent liabilities amounting to €5,773.0m (previous year: €5,427.6m) include guarantees and sureties as well as liabilities under CDS transactions as protection seller. The item primarily includes liabilities arising from warranty obligations in the amount of €5,653.6m (previous year: €5,289.4m). The other liabilities consist of irrevocable lending commitments of €1,149.9m (previous year: €1,415.1m). Based on the credit rating analyses carried out, it can essentially be assumed that borrowers will meet their commitments. No utilisation is therefore expected. Loan provisions that were deducted from the items were recognised in individual cases where the default of the borrower is likely.

34 Foreign currency volumes

€m	31 Dec 2022	31 Dec 2021
Foreign currency assets	14,741.0	20,562.1
Foreign currency liabilities	2,447.0	8,908.0

Notes to the income statement

35 Current income

The increase in current income from shares in affiliated companies is largely due to the reversal and distribution of free reserves of Deka Verwaltungsgesellschaft Luxembourg S.A., Luxembourg, in the amount of €359.0m.

36 Net income from trading portfolio

€62.0m (previous year: €25.1m) of the net income from the trading portfolio totalling €558.3m (previous year: €225.8m) was transferred to the fund for general banking risks in the reporting year.

37 Other operating income

Other operating income consists mainly of €318.4m from Group offsetting and €81.8m from the reversal of provisions (including interest effect of €1.0m). The reversal of provisions primarily includes income from the partial reversal of a provision set up in the 2019 financial year for capital-strengthening measures in relation to a company in the equity investment portfolio in the amount of €53.9m.

38 Other operating expenses

Among other things, this item includes €128.1m in transfers to provisions (including interest effect of €87.2m). In addition, this item includes €7.6m in expenses from Group offsetting as well as the currency translation result of €10.2m from non-trading book items.

39 Write-downs and valuation allowances on receivables and certain securities and allocations to provisions for loan losses

The first-time application of IDW RS BFA 7, risk provisions for foreseeable, not yet individually specified counterparty default risks in banks' lending business ("general valuation allowances"), increased the allocation to valuation allowances in the lending business by €4.6m.

40 Fees for auditors

In accordance with section 285 sentence 1 no. 17 HGB, the total fee paid to the statutory auditors is not shown, since the corresponding information is included in the consolidated financial statements of DekaBank Deutsche Girozentrale.

41 Income taxes

As an institution incorporated under public law, DekaBank's income for tax purposes is subject to corporation tax, the solidarity surcharge and trade tax. This results in a combined tax rate of 31.90% for the companies in the DekaBank fiscal group. Current income tax assets or liabilities are calculated at the current tax rates expected for payments to or refunds from the tax authorities.

On 15 July 2021, the Federal Ministry of Finance (BMF) published a revised circular dated 9 July 2021 on the tax treatment of share trades around the dividend record date. Compared with the original BMF circular dated 17 July 2017, this BMF circular sets out more specific information on the requirements for relief from capital yields tax, as well as on the legal consequences in the event of refusal to allow relief for share trades around the dividend record date. Based on the opinion of the tax authorities set out in the revised BMF circular dated 9 July 2021 on the tax treatment of share trades around the dividend record date, there are tax risks in connection with relief from capital yields tax on share transactions made around the dividend record date in the years 2013 to 2015. Nevertheless, DekaBank still sees no convincing reason to believe that the share trades it transacted around the dividend record date will fall under the scope of section 42 of the German Tax Code. In the case of its share trades, DekaBank also believes that there was a transfer of beneficial ownership and therefore considers it more unlikely than not that a final claim will be made in this regard. Since a degree of uncertainty remains as to how the tax authorities and fiscal courts will ultimately assess the share trades concerned, it is considered likely that enforcing this legal position will require recourse to courts of law. As at 31 December 2022, the related provision amounts to €28.0m due to voluntary advance payments (previous year: €50.5m), and the associated receivable corrections are unchanged at €61.3m.

42 Management and intermediary services for third parties

In the course of ordinary business activities within the Deka Group, transactions with Group companies are concluded at arm's length. The unconsolidated subsidiaries receive services from DekaBank free of charge as part of general business management services. This also applies to three subsidiaries included in the consolidated financial statements of the Deka Group that do not employ any staff of their own.

The management and intermediary services provided for third parties outside the Group relate to custody account management, in particular.

Information relating to covered bond (*Pfandbrief*) business

43 Calculation of cover for mortgage and public sector lending business

Mortgage *Pfandbriefe*

Outstanding Pfandbriefe and cover pool assets

	Nominal value		Net present value[1]	
€m	2022	2021	2022	2021
Outstanding mortgage Pfandbriefe	691.0	465.0	646.9	467.1
Cover pool mortgage Pfandbriefe	1,194.3	1,021.6	1,142.7	1,067.5
Overcollateralization	503.3	556.6	495.8	600.5
Overcollateralization as a % of outstanding	72.8	119.7	76.6	128.6

[1] Net present values according to vdp credit quality differentiation model

Outstanding Pfandbriefe and cover pool assets – risk adjusted net present values[2]

	Risk-adjusted net present value + 250 BP		Risk-adjusted net present value – 250 BP		Risk-adjusted net present value Currency stress	
€m	2022	2021	2022	2021	2022	2021
Outstanding mortgage Pfandbriefe	609.1	431.6	688.5	507.1	609.1	431.6
Cover pool mortgage Pfandbriefe	1,078.3	990.7	1,216.2	1,156.9	1,078.3	990.7
Overcollateralization	469.3	559.0	527.7	649.8	469.3	559.0
Overcollateralization as a % of outstanding	77.0	129.5	76.6	128.1	77.0	129.5

[2] Net present values according to with the static approach pursuant to the Pfandbrief Net Present Value Directive (PfandBarwertV)

Outstanding and cover pool *Pfandbriefe* are denominated exclusively in euros.

Maturity structure

Maturity ranges	Outstanding mortgage Pfandbriefe		Cover pool mortgage Pfandbriefe	
€m	2022	2021	2022	2021
up to 6 months	40.0	20.0	54.3	0.0
> 6 months to 12 months	20.0	25.0	113.8	111.3
> 12 months to 18 months	0.0	40.0	67.2	25.0
> 18 months to 2 years	80.0	20.0	227.7	16.2
> 2 years to 3 years	440.0	80.0	241.7	248.9
> 3 years to 4 years	56.0	180.0	153.9	240.2
> 4 years to 5 years	55.0	50.0	93.1	156.4
> 5 years to 10 years	0.0	50.0	242.6	223.5
> 10 years	0.0	0.0	0.0	0.0
Sub-total	**691.0**	**465.0**	**1,194.3**	**1,021.6**

Breakdown of cover pool assets by size

€m	Total nominal value 2022	Total nominal value 2021
Ordinary cover:		
up to €0.3m[1]	0.0	0.0
> €0.3m to €1.0m[1]	0.0	0.0
> €1.0m to €10.0m[1]	0.0	10.3
> €10.0m[1]	1,095.0	986.3
	1,095.0	**996.6**
Other cover pool assets[1]	99.3	25.0
Sub-total	**1,194.3**	**1,021.6**

[1] secured by mortgages

Additional information

	2022	2021
Share of fixed-interest assets outstanding (in %)	100.0	100.0
Share of fixed-interest assets in cover pool (in %)	66.7	74.4
Volume-weighted average age of receivables (in years)	3.3	3.1
Average weighted mortgage loan-to-value (in %)	59.8	59.4

As in the previous year, the cover pool assets do not include any derivatives.

Total amount of additional cover pool assets

€m	2022	2021
Cover pool assets according to Section 19 (1) no. 2 PfandBG		
based in: Germany	99.3	25.0
thereof exposure in covered bonds according to Article 129 Regulaton (EU) no. 575/2013	0.0	0.0

Breakdown of cover pool assets by type of use

Total amounts	Federal Republic of Germany		France		Sub-total	
€m	2022	2021	2022	2021	2022	2021
Commercial use	494.5	452.5	600.6	544.1	1,095.0	996.6
Other cover pool assets[1]	99.3	25.0	0.0	0.0	99.3	25.0
Sub-total	**593.7**	**477.5**	**600.6**	**544.1**	**1,194.3**	**1,021.6**

[1] Including mandatory overcollateralization/safeguarding liquidity

Breakdown of cover pool assets by type of building

Total amounts	Federal Republic of Germany		France		Sub-total	
€m	2022	2021	2022	2021	2022	2021
Office buildings	291.5	328.6	600.6	544.1	892.0	872.7
Retail buildings	63.0	0.0	0.0	0.0	63.0	0.0
Other commercial buildings	140.0	124.0	0.0	0.0	140.0	124.0
Other cover pool assets[1]	99.3	25.0	0.0	0.0	99.3	25.0
Sub-total	**593.7**	**477.5**	**600.6**	**544.1**	**1,194.3**	**1,021.6**

[1] Including mandatory overcollateralization/safeguarding liquidity

As in the previous year, there were no claims in the cover pool assets which were in arrears by or non-performing for more than 90 days as at the reporting date.

As in the previous year, there were no foreclosure sales or forced administration proceedings pending at the year-end.

As in the previous year, no foreclosure sales were carried out in financial year 2022.

As in the previous year, the Bank did not have to take over any property to prevent losses on mortgages.

As in the previous year, there were no arrears on interest payable on the mortgage debt.

Public sector *Pfandbriefe*

Outstanding Pfandbriefe and cover pool assets

	Nominal value		Net present value[1]	
€m	2022	2021	2022	2021
Outstanding public sector Pfandbriefe	3,807.4	3,666.4	3,499.4	3,802.7
Cover pool public sector Pfandbriefe	4,571.9	4,423.8	4,166.9	4,618.3
Overcollateralization	764.5	757.4	667.4	815.6
Overcollateralization as a % of outstanding	20.1	20.7	19.1	21.4

[1] Net present values according to vdp credit quality differentiation model

Outstanding Pfandbriefe and cover pool assets – risk adjusted net present values[2]

	Risk-adjusted net present value + 250 BP		Risk-adjusted net present value –250 BP		Risk-adjusted net present value Currency stress	
€m	2022	2021	2022	2021	2022	2021
Outstanding public sector Pfandbriefe	3,170.1	3,420.6	3,898.8	4,276.7	3,162.5	3,420.6
Cover pool public sector Pfandbriefe	3,769.1	4,093.9	4,688.3	5,335.8	3,751.0	4,074.1
Overcollateralization	599.0	673.3	789.5	1,059.1	588.5	653.5
Overcollateralization as a % of outstanding	18.9	19.7	20.2	24.8	18.6	19.1

[2] Net present values according to the static approach pursuant to the Pfandbrief Net Present Value Directive (PfandBarwertV)

Maturity structure

Maturity ranges	Outstanding public sector Pfandbriefe		Cover pool public sector Pfandbriefe	
€m	2022	2021	2022	2021
up to 6 months	520.0	423.0	313.5	78.5
> 6 months to 12 months	15.0	170.0	200.1	8.0
> 12 months to 18 months	351.2	525.0	359.2	287.5
> 18 months to 2 years	319.9	15.0	95.0	206.4
> 2 years to 3 years	290.0	621.9	234.7	406.4
> 3 years to 4 years	327.8	290.0	224.8	379.9
> 4 years to 5 years	510.0	324.0	518.0	255.6
> 5 years to 10 years	1,177.0	901.9	1,186.3	1,477.3
> 10 years	296.6	395.6	1,440.4	1,324.2
Sub-total	**3,807.4**	**3,666.4**	**4,571.9**	**4,423.8**

Breakdown of cover pool assets by size

€m	Total nominal value 2022	Total nominal value 2021
Ordinary cover:		
up to €10.0m	140.3	161.1
> €10.0m to €100.0m	2,641.1	2,139.4
> €100.0m	1,761.3	2,123.3
	4,542.7	**4,423.8**
Other cover pool assets[1)]	29.3	0.0
Sub-total	**4,571.9**	**4,423.8**

Additional information

	2022	2021
Share of fixed-interest assets outstanding (in %)	100.0	100.0
Share of fixed-interest assets in cover pool (in %)	88.8	78.5
Net present values for each foreign currency in €m:		
USD	114.5	118.9

As in the previous year, the cover pool assets do not include any derivatives.

Total amount of additional cover pool assets

€m	2022	2021
Cover pool assets according to Section 20 (2) no. 2 PfandBG		
based in: Germany	0.0	0.0
thereof exposure in covered bonds according to Article 129 Regulaton (EU) no. 575/2013	0.0	0.0

Distribution of cover pool assets

Gesamtnennwert der Deckungsmassen – nach Land/Art

	Sovereign		Regional authorities		Local authorities		Other debtors		Total	
€m	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Federal Republic of Germany	84.1	101.0	497.4	572.9	2,615.6	2,481.6	792.4	615.0	3,989.5	3,770.5
Denmark	0.0	0.0	0.0	0.0	0.0	0.0	106.5	106.3	106.5	106.3
Canada	0.0	0.0	28.7	21.7	0.0	0.0	0.0	0.0	28.7	21.7
Latvia	0.0	0.0	0.0	0.0	69.3	87.4	0.0	0.0	69.3	87.4
Netherlands	100.3	132.6	0.0	0.0	0.0	0.0	0.0	0.0	100.3	132.6
Norway	25.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0	25.0	37.5
United States of America	53.0	64.4	0.0	0.0	0.0	0.0	0.0	0.0	53.0	64.4
United Kingdom of Great Britain and Northern Ireland	170.5	203.4	0.0	0.0	0.0	0.0	0.0	0.0	170.5	203.4
Sub-total	**432.8**	**538.9**	**526.1**	**594.6**	**2,684.9**	**2,569.0**	**898.9**	**721.3**	**4,542.7**	**4,423.8**

of which: guarantees from export credit agencies

€m	2022	2021
Federal Republic of Germany	84.1	101.0
Denmark	106.5	106.3
Netherlands	100.3	132.6
Norway	25.0	37.5
United States of America	53.0	64.4
United Kingdom of Great Britain and Northern Ireland	170.5	203.4
Sub-total	**539.3**	**645.2**

As in the previous year, there were no receivables in the cover pool assets that were in arrears by more than 90 days as at the reporting date.

Other information

44 Average number of staff

Number	2022			2021		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Full-time employees	1,778	709	2,487	1,761	700	2,461
Part-time and temporary employees	242	620	862	198	601	799
Sub-total	**2,020**	**1,329**	**3,349**	**1,959**	**1,301**	**3,260**

45 Remuneration of Board members

€	2022	2021
Remuneration of active Board members		
Board of Management	6,012,309	5,620,436
Administrative Board	1,046,186	992,500
Remuneration paid to former Board members and surviving dependants		
Board of Management	3,457,145	3,841,374
Provisions for pension commitments to these persons	50,919,842	51,652,883

The remuneration for active members of the Board of Management indicated above comprises all remuneration granted and benefits in kind in the respective financial year. These also include variable components that are attributable to previous years and are thus dependent on business performance in earlier periods.

In financial year 2022, variable remuneration components in the amount of €3.5m (previous year: €2.1m) were committed to current members of the Board of Management, which are dependent on future performance.

Half of the variable remuneration components to which an entitlement does not already arise in the year of the commitment and that are paid out at a later date (deferred variable remuneration components) are granted in the form of cash payments and half in the form of instruments. All deferred variable remuneration components are subject to a waiting period of up to five years, during which they can be reduced or forfeited entirely in accordance with the statutory provisions if targets are not met at individual, company or Group level.

The value of the instruments depends on the sustainable performance of the Deka Group. The instruments are subject to a one-year holding period following the end of the waiting period and are paid out after that period has elapsed. In the event of serious misconduct or breaches of duty, variable remuneration components that have already been paid out can still be clawed back for a period of up to two years following the end of the last waiting period for the financial year in question.

Total emoluments include deferred variable remuneration components from previous years payable to active members of the Board of Management in the amount of €1.9m and to former members of the Board of Management in the amount of €0.5m. The entitlement of active board members comprises €0.7m for the 2021 financial year, €0.5m for the 2020 financial year, €0.2m for the 2019 financial year, €0.2m for the 2018 financial year, €0.2m for the 2017 financial year and €0.1m for the 2016 financial year.

46 Loans to board members

No loans or advances were granted to the members of the Board of Management or Administrative Board, nor were there any contingent liabilities in favour of these persons.

47 Recommendation regarding appropriation of net profit

The proposed appropriation of the net profit for the 2022 financial year of €200,176,560.00 is as follows:

Distribution of a dividend amounting to €200,176,560.00, i.e. 104.4% on existing shares in the Bank’s subscribed capital (€191,740,000.00) that are entitled to dividends as at 31 December 2022.

Seats on supervisory bodies

48 Notes regarding the seats on supervisory bodies (as at 17 January 2023)

Dr. Georg Stocker (Chairman of the Board of Management)		
- none -		

Dr. Matthias Danne (Deputy Chairman of the Board of Management)		
Chairman of the Supervisory Board	Deka Investment GmbH	Frankfurt/Main
Chairman of the Supervisory Board	Deka Vermögensmanagement GmbH	Frankfurt/Main
Chairman of the Supervisory Board	Deka Immobilien Investment GmbH	Frankfurt/Main
Chairman of the Supervisory Board	WestInvest Gesellschaft für Investmentfonds mbH	Düsseldorf
Deputy Chairman of the Supervisory Board (until 30.09.2022)	S-PensionsManagement GmbH	Cologne
Deputy Chairman of the Supervisory Board (until 30.09.2022)	Sparkassen Pensionskasse AG	Cologne
Chairman of the Supervisory Board (until 30.09.2022)	Sparkassen Pensionsfonds AG	Cologne
Managing Director	Deka Treuhand Erwerbsgesellschaft mbH	Frankfurt/Main

Birgit Dietl-Benzin (Member of the Board of Management)		
Deputy Chairwoman of the Supervisory Board	Deka Investment GmbH	Frankfurt/Main
Deputy Chairwoman of the Supervisory Board	Deka Vermögensmanagement GmbH	Frankfurt/Main
Deputy Chairwoman of the Supervisory Board	Deka Immobilien Investment GmbH	Frankfurt/Main
Deputy Chairwoman of the Supervisory Board	WestInvest Gesellschaft für Investmentfonds mbH	Düsseldorf
Deputy Chairwoman of the Supervisory Board	S Broker AG & Co. KG	Wiesbaden
Member of the Supervisory Board	S Broker Management AG	Wiesbaden
Member of the Administrative Board	FMS Wertmanagement AöR	Munich

Daniel Kapffer (Member of the Board of Management)		
Chairman of the Supervisory Board (until 30.04.2022) Deputy Chairman of the Supervisory Board (from 01.05.2022)	S Broker AG & Co. KG	Wiesbaden
Chairman of the Supervisory Board (until 30.04.2022) Member of the Supervisory Board (from 01.05.2022 until 09.05.2022) Deputy Chairman of the Supervisory Board (from 10.05.2022)	S Broker Management AG	Wiesbaden
Deputy Chairman of the Supervisory Board	bevestor GmbH	Frankfurt/Main
Member of the Supervisory Board (from 27.06.2022 until 08.11.2022) Deputy Chairman of the Supervisory Board (from 09.11.2022)	S-PensionsManagement GmbH	Cologne
Member of the Supervisory Board (from 27.06.2022 until 08.11.2022) Deputy Chairman of the Supervisory Board (from 09.11.2022)	Sparkassen Pensionskasse AG	Cologne
Member of the Supervisory Board (from 27.06.2022 until 08.11.2022) Deputy Chairman of the Supervisory Board (from 09.11.2022)	Sparkassen Pensionsfonds AG	Cologne
Deputy Chairman of the Administrative Board	Deka Verwaltungsgesellschaft Luxembourg S.A.	Luxembourg

Torsten Knapmeyer (Member of the Board of Management)		
Member of the Supervisory Board (until 30.04.2022) Chairman of the Supervisory Board (from 01.05.2022)	S Broker AG & Co. KG	Wiesbaden
Member of the Supervisory Board (from 01.05.2022 until 09.05.2022) Chairman of the Supervisory Board (from 10.05.2022)	S Broker Management AG	Wiesbaden

Martin K. Müller (Member of the Board of Management)		
Chairman of the Administrative Board	Deka Verwaltungsgesellschaft Luxembourg S.A	Luxembourg
Managing Director	Deka Treuhand Erwerbsgesellschaft mbH	Frankfurt/Main

Dr. Olaf Heinrich (Head of Digital Multichannel Management)		
Member of the Supervisory Board	S Broker AG & Co. KG	Wiesbaden

Manfred Karg (Head of Corporate Office & Communications)		
Member of the Supervisory Board	Heubeck AG	Cologne
Member of the Supervisory Board	S-PensionsManagement GmbH	Cologne
Member of the Supervisory Board	Sparkassen Pensionskasse AG	Cologne
Member of the Supervisory Board	Sparkassen Pensionsfonds AG	Cologne

Holger Knüppe (Head of Equity investments)		
Chairman of the Supervisory Board	Deka International S.A	Luxembourg
Member of the Supervisory Board	S-PensionsManagement GmbH	Cologne
Member of the Supervisory Board	Sparkassen Pensionskasse AG	Cologne
Member of the Supervisory Board	Sparkassen Pensionsfonds AG	Cologne

Thomas Leicher (Head of Institutional Customer Sales)		
Member of the Supervisory Board	IQAM Invest GmbH	Salzburg

Kalliopi Minga (Head of Strategy & HR)		
Member of the Administrative Board	Deka Verwaltungsgesellschaft Luxembourg S.A	Luxembourg

Dr. Hans-Jürgen Plewan (Head of IT)		
Member of the Supervisory Board	S Broker AG & Co. KG	Wiesbaden

Marion Spielmann (Head of COO Banking Business and depositary)		
Member of the Administrative Board	Deka Verwaltungsgesellschaft Luxembourg S.A	Luxembourg

Sebastian Vetter (Head of Financing)		
Member of the Supervisory Board	Deka Investors Spezialinvestmentaktiengesellschaft mit veränderlichem Kapital und Teilgesellschaftsvermögen	Frankfurt/Main

49 Notes on the Board members of DekaBank Girozentrale (as at 10.02.2023)

Board of Management

Dr. Georg Stocker
Chairman of the Board of Management

Dr. Matthias Danne
Deputy Chairman of the Board of Management

Birgit Dietl-Benzin
Member of the Board of Management

Daniel Kapffer
Member of the Board of Management

Torsten Knapmeyer
Member of the Board of Management

Martin K. Müller
Member of the Board of Management

Administrative Board

Helmut Schleweis
Chairman
President of the German Savings Banks and Giro Association e.V.
President of the German Savings Banks and Giro Association ö.K.

Walter Strohmaier
Member
First Deputy Chairman
Chairman of the Management Board of Sparkasse Niederbayern-Mitte

Thomas Mang
Member
Second Deputy Chairman
President of the Savings Banks Association of Lower Saxony

Additional representatives elected by the Shareholders' Meeting

Michael Bräuer
Chairman of the Management Board of Sparkasse Oberlausitz-Niederschlesien

Michael Breuer
President of the Rhineland Savings Banks and Giro Association

Ingo Buchholz
Chairman of the Management Board of Kasseler Sparkasse

Prof. Dr. Liane Buchholz
President of the Savings Banks Association Westfalen-Lippe

Ralf Fleischer
Chairman of the Management Board of Stadtsparkasse München

Michael Fröhlich
Chairman of the Management Board of Sparkasse Bielefeld

Thomas Hirsch
(since 01.01.2023)
President of the Savings Banks Association Rhineland-Palatinate

Melanie Kehr
Member of the Executive Board of Kreditanstalt für Wiederaufbau

Dr. Stefan Kram
(since 01.01.2022) Chairman of the Management Board of Kreissparkasse Herzogtum Lauenburg

Beate Läsch-Weber
(until 31.12.2022)
President of the Savings Banks Association Rhineland-Palatinate

Ludwig Momann
(until 31.03.2023)
Chairman of the Management Board of Sparkasse Emsland

Tanja Müller-Ziegler
(until 31.12.2022)
Member of the Management Board of Berliner Sparkasse

Stefan Reuß
(since 01.01.2022) Managing President of the Savings Banks and Giro Association Hesse-Thuringia

Prof. Dr. Ulrich Reuter
President of the Savings Banks Association Bavaria

Katrin Rohmann
Freelance auditor

Frank Saar
Chairman of the Management Board of Sparkasse Saarbrücken

Peter Schneider
President of the Savings Banks Association Baden-Württemberg

Dr. jur. Harald Vogelsang
Spokesman of the Management Board of Hamburger Sparkasse and President of the Hanseatic Savings Banks and Giro Association

Ludger Weskamp
(since 01.01.2022) Managing President of the East German Savings Bank Association

Burkhard Wittmacher
Chairman of the Management Board of Kreissparkasse Esslingen-Nürtingen

Alexander Wüerst
Chairman of the Management Board of Kreissparkasse Köln

Employee representatives appointed by the Staff Committee

Edwin Quast
(until 28.02.2023)
Chairman of the Staff Committee of DekaBank Deutsche Girozentrale
(since 01.03.2023)
Member of the Staff Committee of DekaBank Deutsche Girozentrale

Barbara Wörfel
(until 28.02.2023)
Second Deputy Chairwoman of the Staff Committee of DekaBank Deutsche Girozentrale
(since 01.03.2023)
First Deputy Chairwoman of the Staff Committee of DekaBank Deutsche Girozentrale

Representatives appointed by the Federal Organisation of Central Municipal Organisations

Dr. Uwe Brandl
Mayor of the City of Abensberg

Helmut Dedy
Managing Director of the German Association of Cities

Prof. Dr. Hans-Günter Henneke
Managing Member of the Presiding Board of the German County Association

Assurance of the Board of Management

We assure that, to the best of our knowledge, the annual financial statements prepared in accordance with the applicable reporting standards convey a true and fair view of the net assets, financial position and results of operations of the Company and that the management report conveys a true and fair view of the business performance including the business results and position of the Company and suitably presents the material risks and opportunities and likely development of the Company.

Frankfurt am Main, 6 March 2023

DekaBank Deutsche Girozentrale

The Board of Management

Dr. Stocker Dr. Danne Dietl-Benzin

Kapffer Knapmeyer Müller

Note: This is a translation of the German original. Solely the original text in German language is authoritative.

Independent Auditor's Report

To DekaBank Deutsche Girozentrale AöR, Berlin/Frankfurt am Main

Report on the Audit of the Annual Financial Statements and of the Management Report

Opinions

We have audited the annual financial statements of DekaBank Deutsche Girozentrale AöR, Berlin/Frankfurt am Main, which comprise the balance sheet as at December 31, 2022, and the income statement for the financial year from 1 January to 31 December 2022 and notes to the financial statements, including the recognition and measurement policies presented therein. In addition, we have audited the management report of DekaBank Deutsche Girozentrale AöR for the financial year from 1 January to 31 December 2022.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law applicable to financial institutions and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2022, and of its financial performance for the financial year from 1 January to 31 December 2022, in compliance with German legally required accounting principles, and
- the accompanying management report as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to Section 322 (3) sentence 1 HGB [Handelsgesetzbuch: German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

Basis for the Opinions

We conducted our audit of the annual financial statements and the 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 Annual Financial Statements and of the Management Report" section of our auditor's report. We are independent of the Company 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) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the annual financial statements and on the management report.

Key Audit Matters in the Audit of the Annual Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from 1 January to 31 December 2022. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Valuation of the trading portfolio (assets)
For the accounting policies applied, please refer to note 2 in the notes to the financial statements.

THE FINANCIAL STATEMENT RISK

As at 31 December 2022, DekaBank recognised a trading portfolio on the assets of EUR 34.2 billion. At 34.1% of total assets this represents a material item on the assets side for DekaBank's and contains securities and derivatives, for which is a quoted price on an active market and those for which a valuation method based on observable and/or unobservable market data are used.

The financial statement risk could lie in particular in there being no appropriate market prices, valuation methods and models, as well as valuation parameters incorporated therein, used for the determination of fair values.

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 therefore performed the following audit procedures, among others:

For our assessment, we inspected documentation and conducted surveys, and also tested the functionality of key controls. In particular we evaluated the key processes and controls of DekaBank regarding

- the procurement and validation or independent verification of quoted prices as well as observable and unobservable market data,
- the validation of the valuation methods and models and
- the fair value measurement of securities and derivatives

in respect of their adequacy and effectiveness. In addition, we also audited the effectiveness of the general IT controls in the IT systems that are used.

We carried out, inter alia, the following substantive audit procedures for portfolios of securities and derivatives selected based on risk as at 31 December 2022:

- Carrying out an independent price verification in the event that there is a quoted price on an active market.
- Where there are no quoted prices on an active market, we performed a re-evaluation using independent valuation methods, parameters and models based on risk.
- Determination and recognition of value adjustments for fair value measurement.

OUR OBSERVATIONS

The market prices, valuation methods and models used by DekaBank to value financial assets held for trading are appropriate. The parameters incorporated were properly derived.

Valuation of the trading portfolio (liabilities) from the issuance of certificates
For the accounting policies applied, please refer to note 2 in the notes to the financial statements.

THE FINANCIAL STATEMENT RISK

The balance sheet item "trading portfolio" (liabilities) represents 39.7% (EUR 39.9 billion) of DekaBank's total equity and liabilities, thus constituting a material item on its balance sheet; it includes financial liabilities held for trading from the issuance of certificates that are valued on the basis of observable and unobservable inputs.

The financial statement risk could lie in particular in there being no appropriate market prices, valuation methods and models, as well as valuation parameters incorporated therein, used for the determination of fair values.

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 therefore performed the following audit procedures, among others:

For our assessment, we inspected documentation and conducted surveys, and also tested the functionality of key controls. In particular we evaluated the key processes and controls of DekaBank regarding

- the procurement and validation or independent verification of quoted prices as well as observable and unobservable market data,
- the validation of the valuation methods and models,
- the fair value measurement of certificates

in respect of their adequacy and effectiveness. In addition, we also audited the effectiveness of the general IT controls in the IT systems that are used.

We carried out, inter alia, the following substantive audit procedures for certificates selected based on a risk-oriented approach as at 31 December 2022:

- Risk-based re-evaluation using independent valuation methods, parameters and models. In this process, we covered the significant product-model combinations used by DekaBank.
- Assessment of the discount curves used for the valuation of certificates.

OUR OBSERVATIONS

The valuation methods and models used by DekaBank for the valuation of financial liabilities held for trading from the issuance of certificates are appropriate. The parameters incorporated were properly derived.

Other information
Management and/or the Administrative Board are responsible for the other information.

The other information comprises:

- the separate non-financial report referred to in the management report,
- the remuneration report in accordance with Section 22 Transparency in Wage Structures Act (EntgTranspG) and
- the remaining parts of the annual report, which are expected to be made available to us after the date of the auditor’s report.

The other information does not include the annual financial statements, the management report information audited for content and our auditor's report thereon.

Our opinions on the annual financial statements and on the 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 doing so, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the 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 Administrative Board for the Annual Financial Statements and the Management Report

The Board of Management is responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to financial institutions, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles. In addition, management is responsible for such internal control as they, in accordance with German legally required accounting principles, have determined necessary to enable the preparation of annual financial statements which is free from material misstatement due to fraud (i.e., manipulation of the financial statements and misappropriation of assets) or error.

In preparing the annual financial statements, management is responsible for assessing the Company'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, provided no actual or legal circumstances conflict therewith.

Furthermore, management is responsible for the preparation of the management report that as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual 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 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 management report.

The Administrative Board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor´s Responsibilities for the Audit of the Annual Financial Statements and of the Management Report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual 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 annual financial statements and on the 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 annual financial statements and this management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and 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 for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the 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 accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the 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 Company'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 annual financial statements and in the 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 Company to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles.
- Evaluate the consistency of the management report with the annual financial statements, its conformity with [German] law, and the view of the Company's position it provides.
- Perform audit procedures on the prospective information presented by management in the 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 implemented to mitigate threats to the independence.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual 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 Annual Financial Statements and the 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 annual financial statements and the management report (hereinafter the "ESEF-documents") contained in the electronic file "dekabankdeutschegirozentrale.xhtml" (SHA256 hash value: 0dca11401a5a4c453007b0851fec1ae431181310a33ceaaac48a538e2f80fa3b) 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 annual financial statements and the management report into the ESEF-format and therefore relates neither to the information contained within these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the annual financial statements and the 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 annual financial statements and the accompanying management report for the financial year from 1 January to 31 December 2022, contained in the “Report on the Audit of the Annual Financial Statements and of the 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 of the rendering of the annual financial statements and the 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 QS 1).

Management is responsible for the preparation of the ESEF documents including the electronic renderings of the annual financial statements and the management report in accordance with Section 328 (1) sentence 4 item 1 HGB.

In addition, management is responsible for such internal control as 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 Administrative Board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815, as amended as at the reporting date, on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited annual financial statements and the audited management report.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor at the Annual General Meeting on 31 March 2022. We were engaged by the Administrative Board on 24 May 2022. We have been the auditor of DekaBank Deutsche Girozentrale AöR, Berlin/Frankfurt am Main, without interruption since financial year 2013.

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).

In addition to the financial statement audit, we have provided to DekaBank or subsidiaries of DekaBank the following services that are not disclosed in the annual financial statements or in the management report.

We performed a review of the interim (half-year) financial report, voluntary annual audits of subsidiaries and project-based quality assurance. Furthermore, we also performed other assurance services, including custody account audits/audits pursuant to the German Securities Trading Act [WpHG], assurance engagements pursuant to ISAE 3402, issuing of a letter of comfort and other assurance services required by supervisory law, which were approved by the Audit Committee.

Other Matter – Use of the Auditor´s Report

Our auditor's report must always be read together with the audited annual financial statements and the audited management report as well as the examined ESEF documents. The annual financial statements and the management report converted into ESEF format – including the versions to be published in the German Federal Gazette [Bundesanzeiger] – are merely electronic renderings of the audited annual financial statements and the audited 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 provided in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Franz Haider.

Frankfurt am Main, 9 March 2023

KPMG AG
Wirtschaftsprüfungsgesellschaft

[signature] Haider	[signature] Immesberger
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor)	[German Public Auditor]

Glossary

Additional Tier-1 bond (AT1 bond)
Non-cumulative, fixed-interest bearer bond issued by DekaBank as Additional Tier 1 capital with subsequent adjustment of its interest rate and an unlimited term. If the Common Equity Tier 1 capital ratio falls below a set minimum, the nominal and redemption values of the bearer bond may be reduced in specific circumstances. DekaBank's issued AT1 bonds are fully eligible as core capital and thus help improve the regulatory ratios.

Advisory-/management mandate
External funds which are managed by a Deka Group investment management company (Kapitalverwaltungsgesellschaft – KVG). For advisory mandates, the Deka Group company acts only as an adviser, i.e. it is up to the external management company to verify compliance with investment regulations and contractual restrictions before placing orders. For management mandates, by contrast, investment decisions are taken, reviewed and carried out by a Deka Group investment management company.

Assets under custody
All assets held in custody by the Deka Group as depositary.

Cost/income ratio (CIR)
In the Deka Group, this indicator is calculated from the ratio of total expense (excluding restructuring expense) to total income (excluding risk provisions in the lending and securities business) in the financial year.

Economic perspective
The economic perspective is one of two approaches on which the internal capital and liquidity adequacy assessment processes (ICAAP and ILAAP) are based. In the context of the ICAAP, the economic perspective is implemented via the concept of risk-bearing capacity. It serves to secure the capital of the Deka Group in the long term, thus making a key contribution to ensuring the institution's survival. The aim is also to protect creditors against losses from an economic view. In the context of the integrated quantification, management and monitoring of liquidity risk (ILAAP), the key risk measure in the economic perspective is the "combined stress scenario" funding matrix defined by the Board of Management as being relevant for management purposes.

Economic result
As a key management indicator, together with the risk in the economic and normative perspective, the economic result forms the basis for risk/return management at the Deka Group and is, in principle, determined in accordance with accounting and measurement policies of IFRS. As well as the total of profit or loss before tax, the economic result also includes changes in the revaluation reserve before tax as well as the interest rate- and currency-related valuation result from financial instruments recognised at amortised cost, which are not recognised in the income statement under IFRS but are relevant for assessing financial performance. The interest expense in respect of AT1 bonds (Additional Tier 1 capital), which is recognised directly in equity, is also included in the economic result. Furthermore, the economic result takes into account potential future charges that are considered possible in the future but that are not yet permitted to be recognised under IFRS due to the fact that accurate details are not yet available. The economic result is therefore a control variable on an accrual basis, whose high level of transparency enables recipients of the external financial reporting to consider the company from the management perspective.

Fund assets (according to BVI)
Fund assets according to BVI comprise the fund assets of the mutual and special funds, funds of funds, and master funds. Direct investments in co-operation partner funds, the proportion of products for fund-based asset management attributable to cooperation partners, third-party funds and liquidity as well as the advisory/management and asset management mandates are not included.

Gross loan volume
In accordance with the definition set out in section 19 (1) of the German Banking Act (Kreditwesengesetz), the gross loan volume includes debt instruments issued by public authorities and bills of exchange, amounts due from banks and customers, bonds and other fixed-interest securities, shares and other non-fixed-interest securities including fund units, equity investments and shares in affiliated companies, equalisation claims against the public sector, items for which lease agreements have been concluded as the lessor, irrespective of their recognition in the balance sheet, other assets where they are subject to counterparty risk, sureties and guarantees, irrevocable lending commitments as well as market values of derivatives. In addition, the gross loan volume includes underlying risks from derivative transactions, transactions for the purposes of covering guarantee payments on guarantee funds, as well as the volume of off-balance sheet counterparty risks.

Net funds inflow (according to BVI)
Difference between the funds inflow from the sale of units and the outflow from the redemption of units. Unlike net sales, this figure does not include the funds of cooperation partners or advisory/management and asset management mandates. However, net volumes in relation to proprietary investments are taken into account in the net funds inflow.

Net sales
Key management indicator of sales success in asset management and certificate sales. This figure essentially consists of total direct sales of mutual and special funds, fund-based asset management, funds of cooperation partners, master funds and advisory/management mandates, ETFs and certificates. Net sales in investment fund business corresponds to gross sales less redemptions and maturities. Sales generated through proprietary investment activities are not taken into account. Redemptions and maturities are not taken into account for certificates because in the certificates business the impact on earnings primarily occurs at the time of issue.

Normative perspective
The normative perspective is one of two approaches on which the internal capital and liquidity adequacy assessment processes (ICAAP and ILAAP) are based. In the context of the ICAAP, the normative perspective includes all internal instruments, regulations, controls and processes aimed at ensuring that regulatory and supervisory capital requirements are met on an ongoing basis, i.e. also prospectively, over the next few years. This means that it directly pursues the objective of ensuring that the institution can continue as a going concern. In the context of the integrated quantification, management and monitoring of liquidity risk (ILAAP), the key risk measure in the normative perspective is the LCR in accordance with the CRR in conjunction with Commission Delegated Regulation (EU) 2015/61 as well as 2018/1620 and the NSFR in accordance with the requirements of the CRR.

Number of (active) employees
The number of employees is the effective number of active full-time employees at the reporting date, with part-timers being counted in proportion to their working hours. Active employees means staff members who are actively involved in DekaBank's work processes. This includes the Board of Management, other managers, core staff members, contract staff and temporary staff. Vocational and other trainees, interns and employees on long-term leave are not included.

Payments to the alliance partners
Payments made to the alliance partners (savings banks and Landesbanks) by the Asset Management divisions are made up of the partners' portions of investment fund entry charges, sales commissions, sales performance fees, asset management fees and other payments from asset management. Reporting is focused mainly on payments made to the savings banks, as our shareholders. The payments to alliance partners have also included commissions on certificates.

Return on equity (RoE)
Return on equity before tax at the Deka Group is calculated as the return on balance sheet equity. The annualised economic result is expressed relative to the average balance sheet equity excluding Additional Tier 1 (AT1) capital and adjusted for intangible assets. Average balance sheet equity is calculated based on the capital at the previous year-end and the last quarterly financial statements.
At business division level, return on equity before tax is calculated as regulatory return on equity. This involves expressing the annualised economic result (before income distribution of the Treasury function) relative to the average regulatory capital employed. The average is calculated using monthly risk-weighted assets multiplied by 13% (the strategic target for regulatory capital employed), starting with the figure at the previous year-end.

Risk appetite
Risk appetite refers to the overall aggregate risk of individual risk types that the Deka Group is prepared to enter into, within the limits of its risk capacity, in order to achieve its strategic objectives and business plan. In the economic perspective, the risk appetite for risks affecting profit and loss is defined in the risk-bearing capacity analysis as the allocated risk capital (allocation) for overall risk at Group level. The maximum permissible risk appetite is equal to risk capacity less a management buffer. With regard to liquidity risk, the Deka Group has defined its risk appetite in the economic perspective as the scenario that gives it an indefinite survival period in an extreme hypothetical stress scenario involving a simultaneous institution-specific and market-wide stress event. This hypothetical stress scenario is illustrated in the "combined stress scenario" funding matrix. Permanent solvency and an unlimited survival horizon are achieved by setting a limit of 0 on the liquidity balances of all relevant maturity bands for periods of up to 20 years.

Risk-bearing capacity
The aim of the risk-bearing capacity analysis is to ensure the adequacy of capital resources from an economic view. Sufficient assets must be available to cover risk events, even those which materialise extremely rarely. This involves combining all risk types with a holding period of one year and a correspondingly high confidence level of 99.9%, which is consistent with DekaBank's target rating. The overall risk is then compared against the internal capital, which corresponds to the risk capacity.

Total customer assets
The key management indicator total customer assets mainly includes the income-relevant volume of mutual and special fund products (including ETFs), direct investments in the funds of cooperation partners, the portion of fund based asset management activities attributable to cooperation partners, third-party funds and liquidity, master funds and advisory/management mandates and Deka certificates.

Gender clause

In this report, words in the masculine include words in the feminine; in parts of the report, the masculine form has solely been used to make the document easier to read.

Disclaimer

The management report as well as the Annual financial statements in other respects contain forward-looking statements as well as expectations and forecasts. These are based on the information available to us at this time, which we have deemed to be reliable after careful consideration. We do not assume an obligation to update based on new information and future events after the publication of this information. We have derived our estimations and conclusions from these forward-looking statements, expectations and forecasts. We expressly point out that all of our future-oriented statements are associated with known or unknown risks or imponderables and are based on conclusions relating to future events, which depend on risks, uncertainties and other factors that are outside of our area of influence. Such developments can result from, among other things, a change in the general economic situation, the competitive situation, the development of the capital markets, changes in the economic and regulatory environment as well as from other risks. The events actually occurring in the future may thus turn out to be considerably different from our forward-looking statements, expectations, forecasts and conclusions. We can therefore assume no liability for their correctness and completeness or for the actual occurrence of the information provided. The English translation of the DekaBank Annual financial statements is provided for convenience only. The German original is definitive.

Due to rounding, numbers and percentages presented in this report may not add up precisely to the totals provided.

Contact
External Reporting & Rating
Email: investor.relations@deka.de
Phone: +49 (0) 69 7147 - 0

This report was prepared in March 2023

Produced in-house with firesys

Concept and design
SILVESTER GROUP,
Hamburg

Translation
BBi (Scotland) Ltd.

DekaBank
Deutsche Girozentrale
Mainzer Landstraße 16
60325 Frankfurt/Main
P.O.Box 11 05 23
60040 Frankfurt/Main
Germany

Phone: +49 (0) 69 71 47 - 0
Fax:+49 (0) 69 71 47 - 13 76
www.dekabank.de

Finanzgruppe