Basis of the Commerzbank Group

Structure and organisation

Commerzbank is the leading bank for SMEs (the Mittelstand) and a partner to some 28,000 corporate client groups and around 11 million private and small-business customers in Germany. The Bank offers a comprehensive portfolio of financial services in two business segments – Private and Small-Business Customers and Corporate Clients.

In its corporate client business, Commerzbank focuses on German SMEs, large companies and institutional customers. In international business, the Bank supports customers who have business links with Germany and companies in selected future-oriented sectors. Following the integration of comdirect, private and small-business customers benefit from the services of one of the most modern online banks in Germany, along with telephone support and personal advisory services at a local level. The Polish subsidiary mBank is an innovative digital bank. It serves around 5.5 million private and small-business customers, mainly in Poland but also in the Czech Republic and Slovakia.

The two segments Private and Small-Business Customers and Corporate Clients are each managed by a member of the Board of Managing Directors. All staff and management functions are contained in Group Management: Group Audit, Group Big Data & Advanced Analytics, Group Cyber Risk & Information Security, Group Communications, Group Compliance, Group Finance, Group Human Resources, Group Investor Relations, Group Legal, Group Research, Group Strategy Transformation & Sustainability, Group Tax, Group Treasury and the central risk functions. The support functions are provided by Group Services. These include Group Client Data, Group Corporate Clients & Treasury Platforms, Group Banking & Market Operations, Group Business Platforms, Group Delivery Center, Group Digital Transformation, Group Credit, Group Technology Foundations, Group Operations Credit and Group Organisation & Security. The staff, management and support functions are combined in the Others and Consolidation division for reporting purposes.

On the domestic market, Commerzbank Aktiengesellschaft is headquartered in Frankfurt am Main, from where it manages its branch network serving all customer groups. Following the merger with comdirect Bank AG, Commerz Real AG is now the biggest domestic subsidiary. Outside of Germany, as at the reporting date Commerzbank has 6 material subsidiaries, 19 operational foreign branches and 26 representative offices in just under 40 countries and is represented in all major financial centres, such as London, New York, Tokyo and Singapore. However, the focus of the Bank's international activities is on Europe.

Commerzbank prepares Group financial statements which, in addition to Commerzbank Aktiengesellschaft as operating lead company, incorporate all material subsidiaries over which the Bank exercises control. The financial year is the calendar year.

Objectives and strategy

The 2021 financial year was the first year of Commerzbank's comprehensive transformation, which the Bank initiated in February 2021 with its "Strategy 2024" programme. Through the measures announced, we will combine the benefits of a digitalised bank with personal advisory services, an unwavering customer focus and sustainability. We have a clear goal in mind: to create a strong Commerzbank that is fit for the future. At a Capital Markets Day at the beginning of March 2022, we updated the target values for costs and return on equity. The key elements are described below.

We are putting profitability before growth
We have to make the Bank profitable again. To achieve this, we will focus on optimally meeting the changing needs of our customers while also ensuring a high level of efficiency.

We are adjusting our capacities
We want to reduce our costs by €1.3bn. This also entails eliminating around 10,000 full-time positions (in gross terms) to enable us to operate profitably again in the long term and be in a position to offer long-term job prospects for the majority of the workforce in the future.

We are embracing comprehensive digitalisation
We want to become the number one digital advisory bank in Germany. To achieve this, we will invest significant amounts in our IT: €1.7bn over the next few years. We are hugely expanding digital relationship management in both customer segments, tapping into the expertise of comdirect. We will also make our IT considerably more agile, powerful and efficient in the coming years, for example by significantly expanding our cloud-based solutions.

Private and Small-Business Customers

Commerzbank is to radically restructure its business with private and small-business customers. The aim is to further develop the segment into an attractive combination of a high-performance direct bank and a provider of first-class advisory services.

At 450 locations throughout Germany, customers will in future be able to seek advice on topics such as accounts, cards and instalment loans, and obtain support with the use of the Bank's digital services. Private and small-business customers requiring more in-depth advisory services will receive comprehensive, personal advisory support and individual solutions relating to wealth management and financing.

Corporate Clients

In the Corporate Clients segment, Commerzbank will in future focus on offering a streamlined and digitalised product range to German SMEs and large companies. We will continue to serve international corporate clients if they have business links with Germany or operate in selected future-oriented sectors such as mobility, sustainability, communications, life sciences and capital goods. Our international network remains an important building block. We will also continue to rely on and further optimise our network of correspondent banks and selected non-banking financial institutions (NBFIs).

Cost savings

Following the restructuring, Commerzbank is targeting a return on tangible equity (RoTE) of over 7% for the 2024 financial year. Costs will be reduced by €1.3bn or around 20% by 2024 compared with the figures for 2020. Income, on the other hand, is expected to remain largely stable, the exception being mBank, where further growth should be seen. Almost all of the restructuring expenses anticipated under the "Strategy 2024" programme have been recognised in the income statement as at the end of the reporting year. The contractual terms for more than 60% of the planned elimination of 10,000 full-time positions (in gross terms) have already been agreed.

Despite the significant restructuring, the capital ratio (CET1) will consistently be at least 200 to 250 basis points above the minimum regulatory requirements (MDA). This will enable Commerzbank to remain robust and resilient in the future while still managing its capital efficiently.

Sustainability

Sustainability is one of the four cornerstones of our "Strategy 2024" programme. The sustainability strategy integrated therein currently focuses on climate protection in light of climate change and its consequences. At the heart of the strategy is our commitment to achieve net zero by 2050 at the latest. We have thus aligned ourselves with the Paris Climate Agreement's goal of limiting global warming to a maximum of 1.5 degrees Celsius compared with pre-industrial times. We see sustainable transformation as both an obligation and an opportunity, because sustainability is playing an increasingly important role for both our customers and investors alike. We set a good example and support our customers on their path toward greater sustainability.

Detailed information on the "Strategy 2024" programme can be found both in the Annual Report 2020 and on the Commerzbank website at https://www.commerzbank.com.

Corporate management

Corporate management in the Commerzbank Group is based on a value-oriented steering concept. This concept is focused on ensuring that the risks entered into by the business units are in line with the external and internal guidelines on risk-bearing capacity and on striving to achieve an appropriate return over the long term on the capital employed. In this respect, the Bank regularly monitors the allocation of scarce resources to business units and actively adapts its business strategy to changing market circumstances in order to boost the enterprise value over the long term.

The annual planning process is a key corporate management tool. In this process, the Board of Managing Directors sets targets for the business units based on the business strategy. Existing resources such as capital and risk limits are allocated to the segments in a way that reflects the targets and risk profiles. The segments operationalise the targets based on the business strategy and the results of the planning process. The Board of Managing Directors carries out regular checks to ensure that business planning is being followed. This ensures that any deviations are identified at an early stage through monthly management reporting, and corrective measures are taken.

In order to manage the Group and its segments, the Bank uses the standard controlling indicators described below, which cover all the essential dimensions of Group management. Their development is monitored as part of regular management reporting.

The management of the Bank takes account of both pillars of capital adequacy requirements. To ensure internal risk-bearing capacity at all times, planning includes allocating economic capital to the segments according to type of risk. The average capital employed in the segments is calculated based on the average segmented risk-weighted assets. At Group level, Common Equity Tier 1 (CET1) is shown. The reconciliation of average capital employed in the segments to the Group's CET1 capital is carried out in Others and Consolidation. The Common Equity Tier 1 ratio is a key indicator for the Bank in capital management.

The key figures used for measuring success in the corporate management process are operating profit/loss and group profit/loss after tax and non-controlling interests, along with the cost/income and return on equity ratios and the economic value added calculated from these ratios. The cost/income ratio is used to assess cost efficiency and is defined as the ratio of operating expenses (excluding impairments of goodwill and restructuring expenses) to income before the risk result. The cost/income ratio is calculated in two variants: with and without the inclusion of compulsory contributions in the item "expenses". Segment return on equity is calculated as the ratio of operating profit/loss or pre-tax profit/loss to the average amount of regulatory capital employed. It shows the return on the equity invested in a given business segment. As is standard for value-based management concepts, the target minimum return on capital employed is derived from the expected return on the capital market. Here the focus at Group level is on the return on tangible equity.

Economic value added is the indicator used for determining the performance of the Group. It is defined as the difference between the Group's return on equity and the capital cost rate, multiplied by the Group's equity. The Group's return on equity is the ratio of the consolidated profit after tax and non-controlling interests to the average CET1 capital of the Group.

The calculation of the capital cost rate is based on the Bank's strategic target return on tangible equity and the capital market-oriented Capital Asset Pricing Model (CAPM) and is subject to an annual review. Commerzbank currently calculates its post-tax cost of capital to be 9.2%.

As Group figures, the controlling data listed above form part of a system of other segment-specific data that vary from segment to segment depending on the business strategy.

Remuneration report

The remuneration report for the Board of Managing Directors and the Supervisory Board is published as a separate report and can be found at https://www.commerzbank.com/en/haupt-navigation/aktionaere/publikationen_und_veranstaltungen/unternehmensberichterstattung_1/index.html.

Details pursuant to Art. 315 (4) of the German Commercial Code (HGB)

Details pursuant to Art. 315 (4) of the German Commercial Code (HGB) can be found in the section on corporate responsibility. They form part of the Group management report.

Details pursuant to Art. 315a (1) of the German Commercial Code (HGB) and explanatory report

Details pursuant to Art. 315a (1) of the German Commercial Code (HGB) and explanatory report can be found in the section on corporate responsibility. They form part of the Group management report.

Details pursuant to Art. 315d of the German Commercial Code (HGB)

Details pursuant to Art. 315d in conjunction with Art. 289f of the German Commercial Code (HGB), "Declaration on corporate governance", can be found in the section on corporate responsibility. They form part of the Group management report. The declaration on corporate governance can be found at https://www.commerzbank.de/ geschaeftsbericht2021.

Details pursuant to Art. 340i (5) in conjunction with Art. 315b (3) of the German Commercial Code (HGB)

Details pursuant to Art. 340i (5) in conjunction with Art. 315b (3) of the German Commercial Code (HGB) can be found in the section on corporate responsibility as a combined separate non-financial report and online at www.commerzbank.com/NFR2021. They form part of the Group management report.

Important staffing and business policy events

A report on important staffing changes at management level and special business policy events during the past financial year is provided below.

We are on track in terms of ensuring that the headcount reduction under the "Strategy 2024" programme is as socially responsible as possible: We agreed a framework reconciliation of interests and a framework social plan with the employee representatives in May, and were able to finalise the partial reconciliations of interests for the respective divisions by November.

There were changes in the composition of both the Board of Managing Directors and the Supervisory Board during the year under review. The Bank also made progress in streamlining the Group structure and further reducing complexity. The optimisation of the Bank's capital structure was also on the agenda. At the end of the third quarter of 2021, Commerzbank explained the ambitious key elements of its sustainability strategy at its first "Sustainability Dialogue" event. At the heart of the strategy is our commitment to achieve net zero by 2050 at the latest. The Bank also further strengthened its compliance function in 2021.

Changes in the Supervisory Board of Commerzbank

Hans-Jörg Vetter resigned his position as Chairman and member of the Supervisory Board of Commerzbank for health reasons at the close of 16 March 2021. Andreas Schmitz stepped down from the Supervisory Board of Commerzbank on 24 March 2021. At the request of the Board of Managing Directors of Commerzbank, Helmut Gottschalk was appointed by a court as a member of the Supervisory Board until the end of the 2021 Annual General Meeting by resolution dated 14 April 2021 and elected as Chairman of the Supervisory Board at the end of April until the end of the 2021 Annual General Meeting. Dr. Victoria Ossadnik, Dr. Tobias Guldimann and Dr. Rainer Hillebrand stepped down from the Supervisory Board at the close of the Annual General Meeting on 18 May 2021. The Annual General Meeting elected Daniela Mattheus, Caroline Seifert, Helmut Gottschalk, Burkhard Keese and Frank Westhoff to the Supervisory Board as shareholder representatives with simultaneous effect. Following the Annual General Meeting on 18 May 2021, the Supervisory Board elected Helmut Gottschalk again as Chairman of the Supervisory Board. On the employee representative side, Christian Höhn stepped down from the Supervisory Board on 31 December 2021. His successor Stefan Jennes has been a new member of the Supervisory Board since 1 January 2022.

Changes in the Board of Managing Directors of Commerzbank

During the 2021 financial year, the Supervisory Board of Commerzbank took staffing decisions aimed at putting the Board of Managing Directors in a position to tackle the far-reaching transformation initiated as part of the "Strategy 2024" programme.

At its meeting of 16 June 2021, the Supervisory Board appointed Dr. Bettina Orlopp as Deputy Chairwoman of the Board of Managing Directors with effect from 17 June 2021, at which point the Supervisory Board also extended her appointment to the Board of Managing Directors by five years until June 2026. At the same time, Jörg Hessenmüller's contract was also extended.

At its meeting of 15 September 2021, the Supervisory Board appointed Thomas Schaufler, previously a member of the Management Board with responsibility for Retail Banking at Austria's Erste Group Bank AG, to the Board of Managing Directors. Thomas Schaufler assumed responsibility for Commerzbank's Private and Small-Business Customers segment on 1 December 2021. As announced in June 2021, Sabine Schmittroth will therefore concentrate fully on her duties as Director of Human Resources. This task is particularly important, both within the context of the transformation and its implementation from an HR perspective. The Supervisory Board also appointed Dr. Jörg Oliveri del Castillo-Schulz to the Board of Managing Directors as the new Chief Operating Officer (COO). Dr. Jörg Oliveri del Castillo-Schulz had already assumed responsibility for the COO department as general representative with effect from 1 October 2021 and thus succeeded Jörg Hessenmüller, who left the Bank on 30 September 2021. He was appointed to the Board of Managing Directors with effect from 20 January 2022.

Sabine Schmittroth, Commerzbank's Member of the Board of Managing Directors responsible for Group Human Resources and Director of Human Resources, informed the Supervisory Board in mid-February 2022 that for personal reasons she had decided to leave the Bank when her contract expires at the end of the year. The Supervisory Board will start the search for her successor in the near future.

Commerzbank making good progress with its restructuring

Commerzbank is making good progress towards the cost reductions targeted under the "Strategy 2024" programme. At the end of March 2021, the Bank agreed a voluntary programme with the Central Works Council for the required headcount reduction. Around 1,600 full-time employees left the Bank at the turn of the year under the voluntary programme at Commerzbank Aktiengesellschaft in Germany.

The Bank agreed a framework reconciliation of interests and a framework social plan for the required headcount reduction at Commerzbank Aktiengesellschaft in Germany with the employee representative committees at the beginning of May 2021. The binding agreements will form the basis for ensuring that the headcount reduction is as socially responsible as possible.

Commerzbank and the employee representatives successfully concluded the negotiations on the implementation of the "Strategy 2024" programme in mid-November 2021. The agreement creates clarity regarding the structure of all Group divisions in Germany. Overall, the Bank will become significantly leaner as a result. Following completion of the partial reconciliations of interests, the framework social plan adopted in May 2021 came into force at the same time. Since then, employees have been able to use the tools designed to ensure that the headcount reduction is socially responsible.

Commerzbank streamlines its capital market business

Since 11 May 2021, Commerzbank has been working with the German-French financial group ODDO-BHF in equities business. The cooperation has enabled the Bank to align its capital market business even more consistently with the needs of its core customers. It also enables the Bank to reduce costs and complexity without compromising on customer service. In brokerage business, ODDO-BHF now acts as an exclusive partner for Commerzbank, contributing its extensive expertise in equity sales and trading for European and North American markets. This has allowed Commerzbank to achieve significantly greater reach for its corporate clients' equity transactions and place them even more effectively. The broad geographical platform means corporate clients now enjoy strong coverage of other European countries and sectors with correspondingly greater sales power, in addition to the existing market-leading coverage of equities in the DACH region. Commerzbank itself will no longer offer institutional equity research, i.e. research on equities for professional clients. Instead, its cooperation partner ODDO-BHF will render this service. The Bank's advisory expertise in equities business, delivered through Equity Capital Markets, remains a key cornerstone of Commerzbank's corporate banking business and will continue to be available to customers without restriction. Here the Bank will continue to focus on the relevant needs of its corporate clients, including SMEs, and will continue to help them issue new equity via avenues such as IPOs, share placements, capital increases or convertible bonds.

Commerzbank successfully issues another Additional Tier 1 bond

In mid-June 2021, Commerzbank Aktiengesellschaft successfully issued the third bond under its issuance programme for Additional Tier 1 capital (AT1). The bond has a volume of €500m and a fixed coupon of 4.25% per annum. At over €1.75bn, the order book was heavily oversubscribed, reflecting the widespread interest among investors. The new AT1 bond has a perpetual maturity and the first call date is in the period from October 2027 to April 2028. The bond terms provide for a temporary write-down in the event that the Bank's Common Equity Tier 1 ratio (CET1 ratio) drops below 5.125%. Shareholders' subscription rights were excluded. With the issue of the AT1 bond, Commerzbank is further strengthening and optimising its capital structure.

Commerzbank keeps securities settlement in-house – outsourcing project halted

On 22 July 2021, the Board of Managing Directors of Commerzbank decided to terminate the project to outsource securities settlement to HSBC Transaction Services GmbH with immediate effect due to technical implementation risks and changed market conditions. The termination of the project resulted in a charge of €200m for the second quarter of 2021 arising from the derecognition of an intangible asset. This derecognition had no impact on the Bank's liquidity or CET1 ratio. Provisions in the double-digit millions were also recognised.

With this decision, Commerzbank is reducing the complexity of the transformation and will initially focus on further modernising its own system landscape. Commerzbank's IT delivery organisation, launched two years ago, is set to make an important contribution to this, with the Bank creating a dedicated key area for securities & brokerage within the delivery organisation as part of its "Strategy 2024" programme. The market environment and technological possibilities have changed considerably since the outsourcing project was launched in 2017. The significant growth in trading volume and ongoing technological development mean that Commerzbank is now able to continue securities settlement profitably. As a result, the transfer of processes to the systems of the HSBC subsidiary, most recently planned for mid-2021, did not take place.

Commerzbank sells Hungarian subsidiary to Erste Bank

Commerzbank announced in mid-December 2021 that it will sell its wholly owned subsidiary Commerzbank Zrt. to Erste Bank Hungary Zrt. The sale is part of the "Strategy 2024" programme, under which Commerzbank announced in February that it intends to streamline its international presence. The transaction in Hungary is still subject to approval by the competition authorities and the banking regulator. The parties have agreed not to disclose the purchase price. The completion of the sale and thus the start of the operational implementation of the transaction is planned for the second half of 2022. A comprehensive cooperation agreement between Commerzbank and Erste Group, which was signed at the same time, is also due to come into effect upon completion of the sale. This partnership will enable Commerzbank to offer its corporate customers easy access to selected markets in central and south-eastern Europe via its cooperation partner Erste Group.

Commerzbank has a presence in eastern Europe through its own locations in Poland, the Czech Republic and Russia.

Commerzbank sets ambitious sustainability targets and launches sustainability dialogue

Being "sustainable" is one of the four pillars of our "Strategy 2024" programme, alongside being "customer-oriented", "digital" and "profitable". We see sustainable transformation as both an obligation and an opportunity, because sustainability is playing an increasingly important role for both our customers and investors alike. We set a good example and support our customers on their path toward greater sustainability. We are convinced that working together with our customers is the most effective way for us to reach climate targets. The Bank explained the ambitious key elements of its sustainability strategy at its "Sustainability Dialogue" event, which was held for the first time on 17 September 2021.

The core of the Bank's sustainability agenda is its net zero commitment. Commerzbank is fully committed to the Paris Climate Agreement. In keeping with that commitment, the Bank has pledged to reduce the carbon emissions of its entire lending and investment portfolio to net zero by 2050 at the latest. The Bank aims to help channel more capital into sustainable economic activities in order to mitigate the consequences of climate change. It follows that our primary goal is therefore to support our customers in their own transformations to becoming sustainably operating companies. The Bank will mobilise around €300bn for this purpose by 2025, which corresponds to a threefold increase in sustainable business volume compared with the end of 2020. As a bank, we are financiers of the green transformation and that makes sustainability a mainstay of our business model.

Further information on this can be found on page 40 ff. of the combined separate non-financial report.

Further strengthening of the compliance function

The Bank continued its activities in 2021 to further strengthen the compliance function. In addition to the structural changes, these also related to staff training and the successful recruitment of qualified compliance experts to work at head office and in foreign locations.

To further improve the management of compliance risks, the compliance function implemented various long-term measures in areas such as global financial crime and global markets compliance, further strengthening compliance both in Germany and abroad.

In the year under review, the Bank rigorously pressed ahead with the further development of the global compliance system landscape in line with the latest market standards. Following the global upgrade of the systems and models for monitoring transactions with regard to money laundering and terrorist financing – completed while maintaining continuous operational stability and further improving risk coverage – a number of legacy systems that were no longer required were removed and data paths were standardised to further improve data quality.

The quality of the established expanded sanctions compliance function is constantly maintained, in particular through active participation in banking associations (Association of German Banks and European Banking Federation). The Bank implemented a further process improvement in 2021 by linking the relevant foreign locations to the sanctions list check carried out when processing the respective domestic payment transaction.

In 2021, Global Markets Compliance continued the Global Surveillance Implementation Programme (GSIP) launched in 2018. The programme is aimed at expanding global surveillance of trade and communications. Implementation of the Behavox communications surveillance system was completed in the Shanghai, Prague and Moscow locations and new communication channels integrated into the surveillance process. The "Fixed Income" and "Commodities" asset classes were made available for the SCILA trade surveillance system, and steps were taken to ensure that coverage was in place for all relevant products under the Dodd-Frank Wall Street Reform and Consumer Protection Act.

At the same time, Commerzbank further developed existing governance structures and further expanded the global compliance processes in the business units. This included updating and further developing the compliance sub-risk strategy as part of Commerzbank's overall risk strategy, which in particular defines the strategic fields of action and the risk appetite for compliance risks. The governance processes for managing and monitoring compliance controls were also further strengthened.

For more information on compliance risks and on integrity and compliance at Commerzbank, please see page 138 f. of the Group risk report and page 61 ff. of the combined separate non-financial report.

Economic report

Economic conditions

Economic environment

The coronavirus pandemic continued to have a huge impact on the global economy in 2021. While the incidence of infection decreased significantly in spring 2021 in many countries and the coronavirus-related restrictions were noticeably relaxed, new waves of infection began to build up in autumn, which recently gained considerable momentum with the emergence of the Omicron variant. Against this background, the coronavirus-related rules in many countries were tightened again, sometimes drastically. The closure of production facilities and logistics bottlenecks severely disrupted global supply chains. Many companies were unable to adapt their production to meet the increased demand due to a lack of intermediate products. In the automotive industry, production even had to be significantly curtailed at times due to a lack of semiconductors.

In China, where entire cities with millions of inhabitants are locked down in the event of even small coronavirus outbreaks, economic growth slowed considerably again in 2021. More restrictive lending and problems in the real estate sector also contributed to this slowdown.

In the USA, the economy continued to recover markedly in 2021 despite sometimes high numbers of new coronavirus infections, returning to its pre-crisis level in the second quarter. Demand from private households in particular continued to grow strongly, boosted by a very extensive government aid package and a rapid recovery in the labour market. The strong demand also had a downside, however, as it drove inflation up to 7% as at the end of the year, its highest level in 40 years. At the same time, wage growth increased noticeably as a result of the largely empty labour market. Against this background, the US Federal Reserve announced in December that it would end its bond purchases in March 2022.

The eurozone economy also returned to its pre-crisis level at the end of 2021. It recovered markedly after coronavirus restrictions were eased in the spring, but the wave of coronavirus infections in the autumn meant that economic growth largely came to a standstill again. At the end of 2021, eurozone inflation rose to its highest level since the start of the monetary union. Against this background, the European Central Bank (ECB) announced in December that it intends to buy fewer government bonds. The emergency purchase programme, which runs until the end of March 2022, is not to be extended.

In Germany, the economic slump caused by the pandemic at the beginning of 2021 was particularly pronounced, although the country’s GDP also grew significantly in the summer half-year. The number of new coronavirus infections rose sharply again from October onwards, however, prompting politicians to gradually tighten the coronavirus rules again. As a result, the economy shrank again in the final quarter of 2021 and will probably continue to fall in the first quarter of the current year, although the decline is unlikely to be anywhere near as severe as in the same quarter of the previous year. This is backed up by the continued recovery in industry. Sectors such as hotels and catering, event management and tourism have been hit hard once again. Thanks to the extensive government aid package, particularly for short-time work, there has been only a slight rise in unemployment as a result of the crisis. The unemployment rate is now almost back to the low level seen at the end of 2019.

The financial markets continued to benefit from the expansive monetary and financial policy, although this did not prevent yields, particularly on long-term US government bonds, from being higher at the end of 2021 than they were at the beginning of the year. The yield on ten-year German Bunds is still close to zero, however. Share prices continued to rise sharply in 2021, with indices such as the DAX, Dow Jones and Nasdaq at times reaching new highs. By contrast, the euro fell significantly against the US dollar over the course of 2021.

Sector environment

The difficult economic situation brought about primarily by the coronavirus pandemic meant 2021 was another particularly challenging year for the banking sector. While comprehensive government aid programmes prevented a larger economic downturn, the negative consequences of the pandemic for the economy and society have not yet been overcome. In particular, the risks for the banking environment’s short-term prospects are still high. Nervousness has returned to the international capital markets with the emergence of the new Omicron coronavirus variant. Throughout the world, the industrial sector is suffering from supply chain problems caused in part by China’s zero-Covid strategy. In addition, energy and commodity prices as well as material costs have risen significantly and are fuelling inflation worldwide. China is becoming increasingly unable to fulfil its role as the engine of the global economy: its economic growth has slowed markedly due to high levels of corporate debt, a weaker labour market and turbulence on the real estate market.

The strain on European banks’ lending business has been considerably mitigated to date, primarily thanks to government support for the real economy and central bank support measures relating to liquidity and refinancing. Income losses were limited for both companies and households; employment conditions were protected and the supply of credit to the economy was guaranteed. The financial markets also recovered their initial price losses very quickly and climbed to new highs. As a result, European banks have so far been spared any major impact on earnings despite uncertainty about their risk provisioning requirements and volatility in trading income. Exposures to consumer loans and to companies and self-employed persons in sectors that have been particularly hard hit by the pandemic, such as personal services, gastronomy, tourism and event management, are still subject to high risks, however. There are also fears of loan defaults on commercial property financing if recent changes to working and shopping habits are maintained over the long term.

Germany saw a marked rise in the number of personal insolvencies last year. This was probably due in part to the law aimed at gradually reducing the length of residual debt discharge proceedings from six to three years. By contrast, the number of corporate insolvencies fell even after the expiry of a number of special regulations such as the suspension of the obligation for over-indebted companies to file for insolvency. However, there was also a marked increase in the volume of expected corporate insolvency claims. To mitigate the negative impact, the Corporate Stabilisation and Restructuring Act (Unternehmensstabilisierungs- und Restrukturierungsgesetz, StaRUG), which came into force at the beginning of 2021, is intended to establish new rules for restructuring law upstream of insolvency law. The measures laid down in the Act are designed to significantly improve companies' restructuring prospects and thus prevent insolvencies in a targeted manner.

Even though there has recently been a significant rise in inflation, for the time being the ECB will maintain its expansive monetary policy. The period of extremely low interest rates continues to exert considerable pressure on interest margins in lending business, especially in Europe. This is severely restricting the profitability of the banking sector despite increased income from fees and commissions. The latest EBA stress test in 2021 confirms this finding: although the capital position of the European financial sector proved to be robust, a general income weakness was evident even in the baseline scenario due to the low interest rate environment. Many banks in Germany did not benefit sufficiently from the recent significant improvement in income in investment banking and trading business due to the high level of competitive pressure and their previous withdrawal from currently lucrative business areas such as investment banking.

According to the European Banking Authority (EBA), the banking sector's capital base, liquidity and profitability improved around the middle of 2021 compared with the previous year. As a result, the most important European banks currently have sufficient equity capital and are liquid.

The Deutsche Bundesbank Financial Stability Review also confirms that the German financial system is currently very resilient. For example, in the event of a severe macrofinancial shock the capital buffers that have been built up can be used to prevent restrictions on the supply of credit. At the same time, however, both of the institutions mentioned above point to a marked increase in banks' vulnerability to macroeconomic risks. In its regular Risk Assessment Report, the EBA notes that banks' liquidity would look much worse without central bank support. The supervisory authorities also consider the trend towards high concentrations of government bonds in European banks' balance sheets to be a critical issue. In addition, there is a risk of losses from overvalued assets, especially on the real estate markets.

The Polish banking sector has so far proved to be robust in assessments of financial stability. There are risks, however, from unsecured consumer loans and mortgage loans. There are currently numerous pending lawsuits from private customers relating to Swiss franc real estate loans with indexing clauses. Case law on such lawsuits is inconsistent, but the majority of rulings favour consumers. To date, neither the Polish courts nor the European Court of Justice have come up with a clear and conclusive solution to the issue of foreign currency loans. As a result, at the end of 2020 the Polish banking regulator proposed that foreign currency loans issued by Polish banks be converted into Polish złoty on the basis of voluntary agreements with their customers and that interest be charged based on Poland's WIBOR reference rate. Some Polish banks have made corresponding settlement offers to their customers. As the Polish złoty has depreciated considerably against the Swiss franc over the past few years, such a conversion will have a significant negative impact on the earnings of the banks concerned. Since the end of 2019, they have therefore recognised higher provisions for risks in connection with lawsuits alleging the ineffectiveness of agreements or individual clauses.

Financial performance, assets, liabilities and financial position

The coronavirus pandemic once again had a major impact on the German economy and the global economy as a whole in the 2021 financial year and has therefore also affected the Commerzbank Group's financial statements. The effects of the pandemic on the different divisions of the Commerzbank Group were reviewed in various working groups and projects, and appropriate measures were decided upon.

Explanations of these effects and of amendments to the accounting and measurement methods can be found in Notes 2 and 4 to the Group financial statements.

The Commerzbank Group recorded an operating profit of €1,183m for the year under review, after an operating loss of €–233m in the previous year. The consolidated profit attributable to Commerzbank shareholders for the period under review was €430m.

Total assets of the Commerzbank Group as at 31 December 2021 were €473.0bn, compared with €506.6bn at the end of 2020. The significant decline of 6.6% was due in particular to the reduction in deposits and to the derivatives business.

The decline in risk-weighted assets (RWA) to €175.2bn was mainly due to effects relating to credit and market risk. Common Equity Tier 1 capital was €23.8bn and the corresponding Common Equity Tier 1 ratio 13.6%.

Income statement of the Commerzbank Group

The individual items in the income statement were as follows in 2021:

At €4,849m, net interest income in the period under review was 2.5% below the prior-year level. In the Private and Small-Business Customers segment, interest-bearing business in Germany recorded a significant increase in income due to the continued growth of the credit portfolio, particularly in retail mortgage financing and individual loans. This offset the further significant decline in interest income from deposit business. Several interest rate rises imposed by Poland's central bank in the final quarter of 2021 have already had a noticeably positive impact on mBank's deposit business, meaning that its net interest income, including effects from volume growth in lending business, remained almost at the prior-year level. Net interest income in the Corporate Clients segment was also slightly below the prior-year level. The significant decline in net interest income in the Others and Consolidation segment was primarily attributable to lower interest income from Group Treasury with corresponding offsetting effects in net income from financial assets and liabilities measured at fair value through profit or loss. The recognition of extraordinary income totalling €264m from the targeted longer-term refinancing operations (TLTRO) with the ECB only partially offset the decline in net interest income.

Net commission income rose by 9.0% year on year to €3,616m. In the Private and Small-Business Customers segment, net commission income was the main income driver in the year under review. In Germany, the increase resulted from material growth in the volumes of security accounts and the ongoing very high volume of customer transactions. The increase at mBank was mainly due to price adjustments in retail banking and corporate client business and to higher fees in lending business. In the Corporate Clients segment, net commission income was up slightly year on year.

The net income from financial assets and liabilities measured at fair value through profit or loss was €980m in the period under review, after €66m in the prior-year period. The significant increase was mainly attributable to positive remeasurement effects, whereas the prior-year period was affected by valuation fluctuations in connection with the coronavirus pandemic.

Statement of comprehensive income I €m	2021	2020	Change
Net interest income	4,849	4,975	−126
Dividend income	22	37	−16
Risk result	−570	−1,748	1,178
Net commission income	3,616	3,317	299
Gain or loss from financial assets and liabilities measured at fair value through profit and loss and net income from hedge accounting	884	273	610
Other profit or loss from financial instruments, income from at-equity investments and other net income	−911	−416	−495
Operating expenses	6,239	6,160	79
Compulsory contributions	467	512	−45
Operating profit/loss	**1,183**	**−233**	**1,416**
Impairments of goodwill and other intangible assets	–	1,578	−1,578
Restructuring expenses	1,078	814	263
Pre-tax profit or loss from continuing operations	**105**	**−2,626**	**2,731**
Taxes on income	−248	264	−512
Consolidated profit or loss from discontinued operations	0	30	−30
Consolidated profit/loss	**354**	**−2,861**	**3,214**
Consolidated profit or loss attributable to Commerzbank shareholders and investors in additional equity components	430	−2,870	3,300

The other net income figure of €–944m relates in particular to provisions and allocations to provisions. These include provisions in connection with the ruling of the Federal Court of Justice on price changes with private customers, provisions in connection with mortgage loans issued in foreign currencies at mBank, additional provisions in connection with potential tax refund claims and provisions in connection with the termination of the project to outsource securities settlement to HSBC Transaction Services GmbH.

The risk result of €–570m was significantly lower than the prior-year figure of €–1,748m. The much lower risk result compared with the previous year was due to the reduced number of loan defaults in 2021. The risk result for the prior-year period included a top-level adjustment (TLA) of €–505m made because of the coronavirus pandemic. The default of a large individual exposure also had a negative impact on the risk result in the prior-year period. In the reporting year, the TLA was increased by €–17m to €–523m. Further information on the TLA can be found in the risk report on page 117 ff. and in Note 32 of the notes to the financial statements. In both the Private and Small-Business Customers segment and the Corporate Clients segment, the loan loss provisions required for 2021 remained significantly below the level of the prior-year period.

Operating expenses increased by 1.3% year on year to €6,239m due to the special charge of €200m arising from the derecognition of an intangible asset in connection with the termination of the project to outsource securities settlement to HSBC Transaction Services GmbH, which was incurred at the end of the first half of 2021. Personnel expenses were slightly below the prior-year level at €3,464m, with the elimination of full-time equivalents more than offsetting cost-generating effects including salary adjustments and higher variable remuneration. By contrast, administrative expenses, including depreciation of fixed assets and amortisation of other intangible assets, increased by 4.3% to €2,775m. Excluding the special charge, administrative expenses decreased significantly.

Compulsory contributions, which include the European banking levy, contributions to the Deposit Protection Fund and the Polish bank tax, were reported separately and were below the prior-year level at €467m. In the year under review, Commerzbank made use of the opportunity to meet part of its annual contribution to the European banking levy and the statutory deposit insurance scheme in the form of irrevocable payment commitments.

Restructuring expenses of €1,078m during the reporting period affected earnings performance. These mainly related to the implementation of the “Strategy 2024” programme and resulted primarily from the recognition of restructuring provisions – particularly in connection with the headcount reduction and the closure of locations – and from higher depreciation of leased assets and office furniture and equipment due to a reduction in their remaining useful life in connection with restructuring measures.

The pre-tax profit from continuing operations was €105m, compared with a loss of €–2,626m in the prior-year period.

A positive tax effect of €248m was reported in the period under review. This resulted primarily from tax income relating to the retrospective recognition of deferred tax assets on loss carryforwards, offset mainly by current tax expenses of the mBank subgroup for the period under review and tax expenses relating to other periods resulting from the additional recognition of provisions for tax risks.

The profit from continuing operations after tax was €354m, compared with a loss of €–2,890m in the prior-year period. There was no result from discontinued operations after tax in the year under review. In the previous year, the income and expenses of the Equity Markets & Commodities (EMC) division sold to Société Générale were reported here.

Net of non-controlling interests, a consolidated profit of €430m was attributable to Commerzbank shareholders and investors in additional equity components for the 2021 financial year, compared with a consolidated loss of €–2,870m in the previous year.

Despite Commerzbank Aktiengesellschaft reporting significantly negative results for the 2021 financial year in accordance with the German Commercial Code (HGB), the plan is to service all capital instruments issued by Commerzbank Aktiengesellschaft for the 2021 financial year. We will be proposing to the Annual General Meeting that no dividend be distributed for 2021.

Total comprehensive income, which includes both consolidated profit/loss and other comprehensive income for the period, showed a net total of €774m in 2021.

Other comprehensive income of €421m consists of the sum of changes in the revaluation reserve (FVOCImR) (€–244m), the cash flow hedge reserve (€–192m) and the currency translation reserve (€216m), changes in companies accounted for using the equity method (€–1m), changes from the remeasurement of defined benefit plans not recognised in the income statement (€674m), changes from the remeasurement of land and buildings not recognised in the income statement (€2m), changes in own credit spreads of liabilities FVO not recognised in the income statement (€–30m), and the change in remeasurement effects from net investment hedges (€–5m). Further information on other comprehensive income can be found on page 150 of the Group financial statements.

Operating profit per share was €0.94 and earnings per share €0.23. The comparable figures in the prior-year period were €–0.19 and €–2.33 respectively.

Balance sheet of the Commerzbank Group

Total assets of the Commerzbank Group as at 31 December 2021 were €473.0bn, down 6.6% compared with year-end 2020.

Cash on hand and cash on demand fell by €26.1bn to €49.5bn. The marked decrease compared with the end of 2020 was attributable to reduced demand deposits held with central banks.

Financial assets at amortised cost rose slightly by €7.0bn to €299.2bn compared with the end of 2020. While there was growth in lending to private customers, particularly in retail mortgage financing and universal loans, there were corresponding declines in lending business with international customers.

Financial assets in the fair value OCI category were €40.1bn, down €2.7bn compared with the end of 2020. The fall of 6.4% was attributable to a lower volume of securitised debt instruments.

At €28.4bn, financial assets mandatorily measured at fair value through profit or loss were almost on a par with the end of the previous year. The increase of €5.1bn in loans and advances to central banks was almost entirely offset by a decline of €5.0bn in loans and advances to banks and financial service providers.

Financial assets held for trading were €43.8bn at the reporting date, down €8.4bn compared with the end of 2020, due largely to lower positive fair values of derivative financial instruments. While positive fair values of interest-rate-related and currency-related products fell significantly by a total of €10.8bn, securitised debt instruments increased slightly by €0.4bn and other trading portfolios by €2.0bn.

Non-current assets held for sale and disposal groups were €0.8bn, compared with €2.0bn at the end of 2020. The decline related to portfolio transfers in connection with the sale of the EMC business to Société Générale. The value at the reporting date related in particular to the planned sale of Commerzbank Zrt. to Erste Bank Hungary Zrt.

Assets I €m	31.12.2021	31.12.2020[1]	Change in %
Financial assets – Amortised cost	299,181	292,142	2.4
Financial assets – Fair value OCI	40,115	42,862	–6.4
Financial assets – Mandatorily fair value P&L	28,432	28,677	–0.9
Financial assets – Held for trading	43,790	52,176	–16.1
Other assets	61,526	90,756	–32.2
Total	**473,044**	**506,613**	**–6.6**

Liabilities and equity I €m	31.12.2021	31.12.2020[1]	Change in %
Financial liabilities – Amortised cost	373,976	397,725	–6.0
Financial liabilities – Fair value option	19,735	20,104	–1.8
Financial liabilities – Held for trading	32,957	42,843	–23.1
Other liabilities	16,549	17,367	–4.7
Equity	29,827	28,574	4.4
Total	**473,044**	**506,613**	**–6.6**

[1] Figures adjusted due to restatements (see Group financial statements, Note 4).

On the liabilities side, financial liabilities at amortised cost were down €23.7bn to €374.0bn compared with the end of the previous year. The decline compared with the end of 2020 was driven by a significant reduction of €21.1bn in deposits and other financial liabilities, especially from corporate customers and banks, while deposits from central banks increased by €3.6bn. Debt securities issued fell by €2.6bn compared with the end of the previous year.

Financial liabilities under the fair value option were slightly lower than year-end 2020 at €19.7bn. While debt securities issued increased slightly by €0.5bn to €2.6bn, deposits fell by €0.8bn. The decrease was mainly due to lower repo business.

Financial liabilities held for trading were €33.0bn, down €9.9bn compared with the end of 2020. The decrease was due to the negative fair values of derivative financial instruments, especially interest-rate-related derivative transactions, which fell by €10.6bn.

Provisions increased by €0.6bn year on year to €3.8bn. The increase was mainly due to the restructuring provisions of €0.4bn recognised in the reporting year as part of the "Strategy 2024" programme.

Liabilities from disposal groups were €0.7bn, compared with €2.1bn at the end of 2020. The decline related to portfolio transfers in connection with the sale of the EMC business to Société Générale. The planned sale of Commerzbank Zrt. to Erste Bank Hungary Zrt. had an offsetting effect.

Equity

The equity capital attributable to Commerzbank shareholders reported in the balance sheet on 31 December 2021 was €25.7bn, up 3.6% compared with year-end 2020. Further information on the change in equity can be found on page 153 ff. of the Group financial statements.

Risk-weighted assets were €175.2bn as at 31 December 2021 and thus €3.4bn lower than at year-end 2020. This change is mainly attributable to credit and market risk effects, primarily as a result of decreases in the corporate portfolio through active strategic management of the efficiency of risk-weighted assets. This was partially offset by increases at mBank, the implementation of the new regulatory requirements (Capital Requirements Regulation, CRR II), the model adjustment for regulatory counterparty risks and foreign currency effects. The decline in risk-weighted assets from market risks was caused by both the elimination of pandemic-related high-risk scenarios from the calculation and by changes in positions. The increase in risk-weighted assets from operational risks due to the switch from the internal model to the standardised approach had a slightly offsetting effect.

As at the reporting date, Common Equity Tier 1 capital was €23.8bn, compared with €23.6bn as at 31 December 2020. In addition to our net profit for the year, the key factor behind the increase in Common Equity Tier 1 capital was a rise in the actuarial gains made by the pension plans. These positive effects were partially offset by higher regulatory capital deductions. The Common Equity Tier 1 ratio was thus 13.6%, compared with 13.2% in the previous year.

The improvement in the ratio was due in part to the increase in Common Equity Tier 1 capital, but above all to the decline in risk-weighted assets. The Tier 1 ratio (with transitional provisions) was 15.5% as at the reporting date, up from 15.0% as at the end of 2020. The increase in Tier 1 capital was chiefly attributable to the issue of an AT1 bond in the first half of 2021. Grandfathered Tier 2 capital instruments became ineligible due to regulatory transitional provisions, but this decline was offset by the issue of a subordinated bond with a nominal value of €500m. The total capital ratio (with transitional provisions) was 18.4% as at the reporting date, compared with 17.7% as at the end of 2020. Own funds increased by €0.6bn year on year to €32.2bn as at 31 December 2021.

The leverage ratio based on the CRD V/CRR II rules applicable on the reporting date, which is equal to Tier 1 capital divided by leverage ratio exposure, was 5.2%, both with transitional provisions and fully loaded.

The Bank complies with all regulatory requirements. This information includes the consolidated profit attributable to Commerzbank shareholders and eligible for regulatory purposes.

Funding and liquidity of the Commerzbank Group

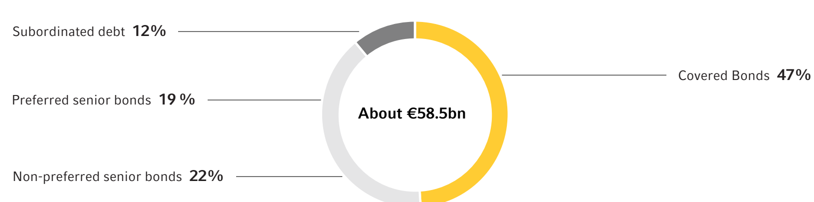
The liquidity management of the Commerzbank Group is the responsibility of Group Treasury, which is represented in all major Group locations in Germany and abroad and has reporting lines in all subsidiaries.

Liquidity management comprises both operational and strategic components. Operational liquidity management encompasses management of daily payment inflows and outflows, planning for payment flows expected in the short term and management of access to central banks. The division is also responsible for access to unsecured and secured sources of funding in the money and capital markets and the management of the liquidity reserve portfolio. Strategic liquidity management involves managing maturity profiles for liquidity-relevant assets and liabilities within specified limits and corridors. Additional information on this subject can be found in the "Liquidity risk" section of the Group risk report.

Guidelines for the funding profile and funds are derived from the business strategy and reflect risk tolerance. The Group's funding is appropriately diversified in terms of investor groups, regions, products and currencies. Top-level decisions about liquidity management are taken by the Group Asset Liability Committee (ALCO), which meets at regular intervals.

The quantification and limitation of liquidity risks is carried out via an internal model in which expected cash inflows are compared against expected cash outflows. The limits set are monitored by the independent risk function. ALCO and the Board of Managing Directors receive regular reports on the liquidity risk situation.

Capital market funding structure[1]
As at 31 December 2021



[1] Based on reported figures.

Commerzbank had access to the money and capital markets at all times during the reporting period, and its liquidity and solvency were always adequate. Furthermore, the Bank's liquidity management is always able to respond promptly to new market circumstances. Even against the background of ongoing uncertainty due to the coronavirus pandemic, the Bank's liquidity situation is comfortable and complies with both internal limits and applicable regulatory requirements.

The Commerzbank Group raised a total of €3.6bn in long-term funding on the capital market in 2021.

Commerzbank Aktiengesellschaft issued an AT1 bond in June under its issuance programme for Additional Tier 1 capital, with a volume of €500m and a fixed coupon of 4.25% per annum. It has a perpetual maturity and the first call date is in the period from October 2027 to April 2028.

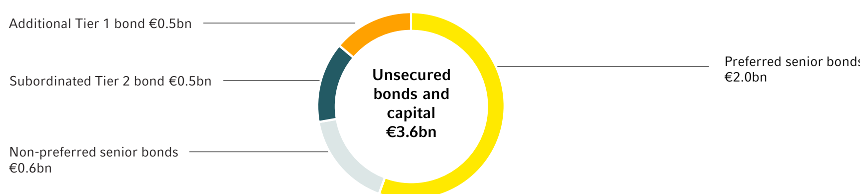
The bond terms for the issue provide for a temporary write-down in the event that the Bank's Common Equity Tier 1 ratio (CET1 ratio) drops below 5.125%. With the issue of the bonds, Commerzbank is further strengthening and optimising its capital structure.

The Bank also issued a subordinated bond (Tier 2) with a volume of €500m. This bond has a term of 10.25 years with the first call date being in the period from September to December 2026 and a fixed coupon of 1.375% per annum.

A preferred senior bond with a total volume of €750m (including increase) was also issued. The benchmark bond has a term of four and a half years, and the re-offer spread was on average 44 basis points over six-month Euribor. A two-year preferred senior bond with a variable interest rate and a volume of €700m was issued in November. In addition, a preferred senior bond with a volume of GBP 250m was placed for the first time. The bond has a term of three years, and the re-offer spread was 105 basis points over the comparable UK government bond. A further €0.3bn of preferred and non-preferred senior bonds were issued as private placements.

mBank issued its first green non-preferred senior bond from Poland in a €500m benchmark transaction. The bond has a term of six years with a call option after five years.

Group capital market funding 2021
Volume €3.6bn



The eurozone money markets continued to be significantly influenced by the coronavirus pandemic and its repercussions.

The ECB is still in the process of implementing the comprehensive measures it decided on in March 2020 to counter the economic downturn in the eurozone and the resulting impact on the financial sector. Under the TLTRO III programme, the ECB provided banks with additional liquidity of around €1,300bn in 2020. After the ECB announced in December that it would extend the maximum participation from 50% to 55% of the eligible loan portfolio from March 2021, Commerzbank made use of this option and increased its participation by a further €3.6bn. As a result, the total volume currently amounts to €35.9bn, the maximum possible volume. The interest rates for the main refinancing operations, the marginal lending facility and the deposit facility were unchanged.

As at the reporting date, the Bank had a liquidity reserve of €60.0bn in the form of highly liquid assets. The liquidity reserve portfolio works as a buffer in stress situations. It is funded in line with the liquidity risk appetite to ensure that it is kept at the required size throughout the entire reserve period stipulated by the Board of Managing Directors. Part of this liquidity reserve is held in a separate stress liquidity reserve portfolio managed by Group Treasury to cover liquidity outflows should a stress event occur and ensure solvency at all times.

The Bank also holds an intraday liquidity reserve portfolio. As at the reporting date, the total value of this portfolio was €6.1bn.

At 145.1% (average of the last 12 month-end values), Commerzbank was well above the minimum 100% level required for the liquidity coverage ratio (LCR). Commerzbank's liquidity situation as at the end of the quarter was therefore comfortable given its conservative and forward-looking funding strategy.

Summary of 2021 business position

The difficult economic situation in the second year of the pandemic, with severe encroachments on economic and social life, meant that 2021 was another particularly challenging year for the banking sector.

It was also the first year of Commerzbank's comprehensive transformation under the "Strategy 2024" programme, and despite all the adversities it was a good year for Commerzbank. We achieved a consolidated profit in the 2021 financial year despite special charges totalling around €2bn, mainly relating to the restructuring and foreign currency loans at our Polish subsidiary mBank. That we were able to more than compensate for these charges was due to significantly lower loan loss provisions and in particular to very robust customer business. We also showed the necessary discipline when it came to costs.

In addition to the encouraging key figures, we also made good progress in the 2021 financial year with the strategic measures we decided in February and achieved some important milestones: For example, the gross reduction of 10,000 jobs that is necessary for the planned cost decrease – to be carried out in a way that is as socially responsible as possible – is well under way. We agreed a framework reconciliation of interests and a framework social plan with the employee representatives in May, and were able to finalise the partial reconciliations of interests for the respective divisions by November.

We have also made significant progress with the optimisation of our branch network, another cornerstone of our strategy: In Germany, we have reduced the number of branches from around 800 to about 550 as at the end of 2021; most of the road on the way to the target of 450 branches has already been traversed.

We have also made faster-than-expected progress in streamlining our international network. During the year, we shut 6 of a total of 15 locations planned for closure. Added to this was the sale of our Hungarian subsidiary to Erste Bank Hungary Zrt., which was agreed shortly before the end of the year. Thanks to the cooperation agreement concluded at the same time with Erste Group, we will actually be able to expand our range of services in the region for our corporate customers in the future. We are increasingly relying on partnership models in other areas, too. In May we announced the streamlining of our capital markets business through extensive collaboration in equity trading and equity research with ODDO-BHF.

With a transformation on this scale, there are also issues that cannot be implemented right away, or where individual adjustments are necessary. For example, midway through the year the Board of Managing Directors of Commerzbank decided to terminate the project to outsource securities settlement to HSBC Transaction Services GmbH with immediate effect due to technical implementation risks and changed market conditions. Accordingly, this led to an unplanned impact on earnings.

With business performance in the first quarter already significantly better than planned, however, we were able to gradually adjust our guidance regarding 2021 earnings given in the Annual Report 2020 in line with the ongoing successful business performance. This was in spite of the difficult operating environment and a number of special charges.

At the beginning of the year we were still expecting to report a consolidated loss for the year under review, but we were able to revise our profit forecast upwards as the year progressed. The expectations of a risk result of between €–0.8bn and €–1.2bn, which were formulated against the background of the ongoing difficult operating environment and risk factors, were also not borne out over the course of the year. In the second half of the year, we therefore reduced the expected negative impact of the risk result for 2021 as a whole to less than €–0.7bn. Overall, thanks to very robust customer business, significantly lower provisioning requirements for credit risks, positive remeasurement effects and a positive tax effect, we were able to more than offset the special charges incurred in the 2021 financial year, allowing us to record a consolidated profit in 2021 and significantly improve a number of the associated profitability indicators.

In the Private and Small-Business Customers segment, the focus in the 2021 financial year was on implementing the central initiatives under the "Strategy 2024" programme. The main areas of focus were the expansion of its online and mobile banking channels and the digitalisation of processes and procedures. In the year under review, we once again made noticeable gains in business with private and small-business customers. The securities and lending volume in Germany increased by €50bn to €340bn. Net inflows alone accounted for some €15bn of the growth of around €42bn in the securities volume. Retail mortgage financing grew by a further 7% to around €92bn last year. The segment proved to be robust despite the challenging environment and was able to keep operating income almost stable in the 2021 financial year thanks to the high level of customer activity. It also almost completely offset the negative impact of a further rise in provisions for foreign currency loans at mBank. Without this impact, earnings were significantly higher. The risk result was much lower than we expected despite the ongoing difficult operating environment caused by the coronavirus pandemic. Costs in Germany fell slightly as expected, but this was not fully reflected in total operating expenses for the segment as a whole due to an increase in costs at mBank. We were nevertheless able to keep operating expenses at the prior-year level; this did not lead to an improvement in the cost/income ratio due to the slightly lower operating income reported. Overall, the segment's operating profit rose more strongly than forecast. The operating return on equity recorded an encouraging increase year on year.

The performance of the Corporate Clients segment was characterised by a persistently challenging operating environment in the past financial year. In addition to economic dependencies and the repercussions of the coronavirus pandemic, the negative interest rate environment continued to weigh on the interest margins attainable in German customer business in particular. Delivery bottlenecks and rising energy prices also presented challenges for our customers. By contrast, the capital markets achieved a pleasing performance thanks to low interest rates and sustained liquidity. The Mittelstand division recorded positive income growth compared with the prior-year period. While income from lending business remained stable, the division reported higher income from both transaction banking and capital market business. The International Corporates division recorded a decline in income, however, attributable in particular to the strategic reduction in lending and capital market business as part of the refocusing project. This could be offset only partially by higher income from transaction banking. The Institutionals division also saw a trend toward lower income, particularly in capital market business. By contrast, the division benefited from an increase in payment transaction income and higher deposit fees, primarily in cash management. Contrary to our expectations, the segment recorded a pleasing increase in income overall compared with the previous year. As expected, the risk result was significantly below the prior-year figure, which was impacted by the coronavirus pandemic and the default of a large individual exposure. Also as expected, operating expenses fell year on year thanks to successful cost management. Overall, the higher income and the markedly lower risk result led to a significant increase in operating profit. The cost/income ratio improved accordingly, while the operating return on equity also increased significantly compared with the previous year.

Overall, and despite high special charges, Commerzbank returned to the black in 2021, the first year of its far-reaching transformation, posting a consolidated profit of €430m. The basis for this was good performance in customer business, with stabilised net interest income and significantly higher net commission income. The Bank reduced its operating costs as planned. In addition, the risk result was significantly lower in the second year of the coronavirus pandemic. Overall, the Bank posted an operating profit of just under €1.2bn, with Commerz Ventures also contributing to this thanks to another pleasing result. The net return on equity was still very low at 1.0%, but was in positive territory again after falling to −11.7% in the previous year. The cost/income ratio including compulsory contributions was still too high at 79.3%, but improved compared with the previous year. The Common Equity Tier 1 ratio rose to 13.6% and thus offers a solid basis for further implementation of the “Strategy 2024” programme.

Segment performance

The comments on the segments' results are based on the segment structure described on pages 264 ff. of the notes to the Group financial statements.

More information and explanations regarding restatements of prior-year figures can be found in Note 61 to the Group financial statements.

Private and Small-Business Customers

The Private and Small-Business Customers segment encompasses branch business in Germany, the comdirect brand, Commerz Real and the mBank Group. The segment significantly increased the volume of assets managed for customers, i.e. the sum of lending and the volume of security accounts, in Germany to around €340bn in the 2021 financial year. With customer numbers remaining largely unchanged at around 11 million in Germany and roughly 5.5 million in Poland, the Czech Republic and Slovakia, Commerzbank is one of the leading banks for private and small-business customers in these markets.

Private and Small-Business Customers – earnings performance

€m	2021	2020[1]	Change in %/%-points
Income before risk result	4,694	4,778	−1.8
Risk result	−319	−562	−43.2
Operating expenses	3,482	3,515	−0.9
Compulsory contributions	318	331	−4.0
Operating profit/loss	**575**	**370**	**55.4**
Average capital employed	6,175	5,680	8.7
Operating return on equity (%)	9.3	6.5	2.8
Cost/income ratio in operating business (%) – excl. compulsory contributions	74.2	73.6	0.6
Cost/income ratio in operating business (%) – incl. compulsory contributions	81.0	80.5	0.5

[1] Figures adjusted due to IFRS 8.29 (see Group financial statements, Note 61).

Despite a very challenging environment for the banking sector, the Private and Small-Business Customers segment achieved a significantly higher operating profit in 2021 than in the previous year. Higher income from core business, the sharp fall in the risk result and a slight reduction in operating expenses and compulsory contributions softened the impact of the additional provisions for mortgage loans issued in foreign currencies at mBank. Overall, the operating profit improved by €205m compared with the prior-year period to €575m.

Total segment income before risk result was €4,694m in the year under review, down €84m year on year. While all key income items were higher year on year, the increase of €600m in provisions for mortgage loans issued in foreign currencies at mBank had a major negative impact on earnings.

Net interest income increased by €18m to €2,596m year on year. Interest-bearing business in Germany recorded a significant increase in income due to the continued growth of the credit portfolio, particularly in retail mortgage financing and individual loans. This offset the further significant decline in interest income from deposit business. Several interest rate rises imposed by Poland's central bank in the final quarter of 2021 have already had a noticeably positive impact on mBank's deposit business, meaning that its net interest income, including effects from volume growth in lending business, remained almost at the prior-year level.

Net commission income was the main income driver in the year under review in the two core regions of Germany and Poland. It increased by a total of €271m to €2,422m, with double-digit growth rates in both regions. In Germany, the increase resulted from material growth in the volumes of security accounts and the ongoing very high volume of customer transactions. The increase at mBank was mainly due to price adjustments in retail banking and corporate client business and to higher fees in lending business.

Among the other earnings components, the fair value result increased by €135m to €367m, primarily due to positive remeasurement effects for a financial investment in Germany. The increase in negative other net income to €–720m in 2021, from €– 237m in the previous year, primarily reflected the substantial rise of €600m in provisions for mortgage loans issued in foreign currencies at mBank. Provisions in connection with the ruling of the German Federal Court of Justice on price adjustments with private customers were also recognised under this item.

The risk result fell significantly to €–319m, compared with €–562m in the previous year. After a high level of loan loss provisions was recognised in connection with the effects of the coronavirus pandemic in the previous year, a significantly lower level of loan loss provisions was required in the year under review, particularly in Germany. The TLA for the segment was almost entirely attributable to the Small-Business Customers portfolio and was €–126m as at the reporting date, compared with €–129m in the previous year.

Operating expenses were reduced by €33m in the period under review to €3,482m. Cost reductions in the domestic market were offset by somewhat higher expenses at mBank. The total cost of compulsory contributions was also slightly reduced in both core regions, falling from €331m in the prior-year period to €318m.

Overall, the Private and Small-Business Customers segment posted a pre-tax profit of €575m for the period under review, compared with a pre-tax loss of €–1,209m in the previous year. The prior-year figure included impairments of €1,578m recognised on intangible assets.

Corporate Clients

The Corporate Clients segment comprises four reporting areas. The Mittelstand, International Corporates and Institutionals divisions are responsible for business with our core customers: the Mittelstand division covers Mittelstand (SME) customers and domestic large corporates with the relevant products they require. The International Corporates division looks after corporate clients headquartered abroad and large German multinational companies. The Institutionals division is responsible for managing relationships with banks in Germany and abroad, as well as those with central banks and selected non-bank financial institutions (NBFIs) such as insurance companies and pension funds.

The segment offers customers the complete range of products of an international full-service bank, from traditional credit products and individually tailored financing solutions to cash management and trade finance, investment and hedging products and customised capital market solutions. The Others division handles all business that either has a cross-segment risk management function or falls outside the strategic focus of the Corporate Clients segment. This mainly relates to assets transferred from the former run-off segments and effects from hedging positions.

Corporate Clients – earnings performance

€m	2021	2020[1]	Change in %/%-points
Income before risk result	3,168	3,056	3.7
Risk result	– 149	– 1,081	– 86.2
Operating expenses	2,267	2,327	– 2.6
Compulsory contributions	96	113	– 14.7
Operating profit/loss	**656**	**– 465**	**.**
Average capital employed	9,891	11,280	– 12.3
Operating return on equity (%)	6.6	– 4.1	10.7
Cost/income ratio+ in operating business (%) – excl. compulsory contributions	71.6	76.2	– 4.6
Cost/income ratio in operating business (%) – incl. compulsory contributions	74.6	79.8	– 5.3

[1] Figures adjusted due to IFRS 8.29 (see Group financial statements, Note 61).

The performance of the Corporate Clients segment was characterised by a persistently challenging operating environment in the year under review. In addition to economic dependencies and the repercussions of the coronavirus pandemic, the negative interest rate environment continued to weigh on the interest margins attainable in German customer business in particular.

Delivery bottlenecks and rising energy prices also presented challenges in customer business. By contrast, the capital markets achieved a positive performance thanks to low interest rates and sustained liquidity, leading to higher contributions from fair value items. On the back of a significantly lower risk result, the Corporate Clients segment recorded an operating profit of €656m, compared with an operating loss of €–465m in the prior-year period. The prior-year figure included high valuation allowances for credit risks and expenses from negative remeasurement effects.

The Mittelstand division recorded positive income growth compared with the prior-year period. While income from lending business remained stable, the division reported higher income from both transaction banking and capital market business. The International Corporates division recorded a decline in income, however, attributable in particular to the strategic reduction in lending and capital market business as part of the refocusing project. This could be offset only partially by higher income from transaction banking. The Institutionals division also saw a trend toward lower income, particularly in capital market business. By contrast, the division benefited from an increase in payment transaction income and higher deposit fees, primarily in cash management. The Others division, which includes hedging and remeasurement effects in particular, recorded a positive performance after a negative impact on earnings in the previous year.

In the year under review, income before risk result was €113m higher than in the prior-year period at €3,168m. At €1,689m, net interest income was down €35m on the prior-year level, while net commission income of €1,248m exceeded the prior-year level by €41m. Net income from financial assets and liabilities measured at fair value through profit or loss improved markedly to €257m, €103m higher than the figure for the prior-year period.

The risk result in the Corporate Clients segment in the period under review was €–149m, compared with €–1,081m in the prior-year period, which was affected in particular by the coronavirus pandemic and the default of a large individual exposure. As at the reporting date, the proportion of the TLA attributable to the segment was €–392m, with an allocation of €–18m recognised in profit or loss being made in 2021.

Operating expenses were €2,267m, down €60m on the prior-year figure. The decline resulted from lower personnel and administrative expenses achieved through strict cost management. The reported compulsory contributions of €96m relate primarily to the European banking levy. Compulsory contributions of €113m were recorded in the previous year.

Overall, the pre-tax profit from continuing operations was €656m, compared with a pre-tax loss of €–465m in the previous year.

Others and Consolidation

The Others and Consolidation segment comprises the income and expenses which are not attributable to the business segments. Others covers, for example, Group Treasury, equity holdings not allocated to the business segments and overarching specific matters such as expenditure on regulatory fees. Consolidation reconciles the figures shown in segment reporting with the Group financial statements in accordance with International Financial Reporting Standards (IFRS). Others and Consolidation also covers the result of the staff, management and support functions, which are charged to the segments. In addition, restructuring expenses for the Group are reported centrally in this segment.

The Others and Consolidation segment reported an operating loss of €–48m for 2021, compared with an operating loss of €–139m in the prior-year period. The improvement was attributable to an improved Group Treasury result, which recorded higher income from investments in securities and from bond sales in the liquidity portfolio compared with the 2020 financial year, and in particular to net positive remeasurement effects, the deferral of income from targeted longer-term refinancing operations (TLTROs) with the ECB, a change in the estimated remaining term of a liability, which had a negative impact on the previous year, and lower net loan loss provisions for a residual portfolio in the dissolved Asset & Capital Recovery segment. This was offset by the negative impact on earnings resulting from the termination of the project to outsource securities settlement to HSBC Transaction Services GmbH, net negative effects from the recognition and reversal of provisions and consolidation adjustments.

Others and Consolidation recorded a pre-tax loss of €–1,125m for 2021. This figure included restructuring expenses of €1,078m relating to the implementation of the “Strategy 2024” programme.

Outlook and opportunities report

Future economic situation

The coronavirus pandemic will continue to have a significant impact on the global economy in the current year. The currently high number of new coronavirus infections is expected to decrease sustainably in spring 2022, in a similar way to last year. While more and more countries have now started to relax their coronavirus restrictions, the materials and delivery bottlenecks are likely to persist for some time.

China is also seeing repeated coronavirus outbreaks at regional level, with the authorities responding by imposing lockdown measures. While they are only likely to affect the economy to a limited extent, these measures are nevertheless a negative factor. The economic outlook for China is also clouded by turbulence on the real estate market, the worsening situation on the labour market and high levels of corporate debt. Last but not least, China's economic performance is being overshadowed by the unresolved trade conflict with the USA, which China is responding to with a costly self-sufficiency strategy. This all points to a further slowdown in economic growth in 2022.

The US economy is set to enjoy further strong growth of 3.8% in 2022, with the sharp rise in employment increasing the incomes of working households. Private households also have high levels of savings that they have been forced to accumulate over the last few years due to limited opportunities for consumption. This money is also available for consumption. Additional growth stimulus can be expected when companies replenish their depleted inventories.

After a hard winter, the eurozone economy is likely to recover strongly from spring onwards when coronavirus restrictions may largely be lifted. As in the USA, the economy can expect to enjoy an additional boost once people start to spend some of the extensive savings they built up during the crisis while shops were closed. However, it is likely to be some time yet before contact-intensive services recover fully from the coronavirus pandemic.

The recovery is also being supported by the continuation of the highly expansive monetary and fiscal policy. The suspension of the Stability and Growth Pact will continue into 2022, meaning that member states will still be allowed to have budget deficits that exceed 3% of GDP. EU member states will also receive increased funds from the Recovery and Resilience Facility in 2022 in the form of loans and non-repayable grants. We are expecting annual average growth of 3.5% for the eurozone economy in 2022, and growth of 3.0% in Germany.

The escalation of the Russia-Ukraine conflict represents a significant risk for the economic outlook. If Russia were to curb or even completely stop energy exports, it would at least short-term lead to energy shortages in Western Europe. Restrictions on production, especially in energy-intensive sectors, would hardly be avoided. At the same time, energy prices would continue to rise, significantly reducing the purchasing power of households. In this case, at least in Germany, a recession would be hard to avoid.

The performance of the financial markets in 2022 will depend as rarely before on inflation and how it is perceived. In the USA, where labour costs are already rising sharply and prices are increasing across the board, the Federal Reserve will react to the high inflation. We are expecting its key interest rate be raised by a total of 150 basis points by the end of 2022. The ECB is also likely to end its bond purchases in the summer and raise its deposit facility rate in two steps from −0.5% to 0% during the second half of the year. This policy should enable the ECB to largely shield the euro bond market from disruptive influences from the USA in 2022. The yield on ten-year German Bunds is likely to be negative for large periods of 2022, while interest rates will remain low for another year. The DAX therefore remains attractive with a dividend yield of just under 3%. Admittedly, the approaching start of the rate hikes and the Russian-Ukraine crisis have led to some sharp falls in prices. However, starting in the spring, with economic growth likely to be strong again, gains can be expected, provided geopolitical conflicts do not escalate further. If a recession in the euro area were to occur in the wake of the Ukraine conflict, the ECB would probably delay the change in interest rates further.

The euro is likely to appreciate slightly against the US dollar in 2022, as the markets believe the ECB is now also taking more decisive action to combat inflation risks. We are anticipating a euro/US dollar exchange rate of 1.16 at the end of 2022.

Exchange rates	31.12.2021	31.12.2022[1]
Euro/US-dollar	1.14	1.16
Euro/Sterling	0.84	0.87
Euro/Zloty	4.59	4.70

[1] The figures for 2022 are Commerzbank forecasts.

Future situation in the banking sector

The outlook for the banking industry remains very challenging. Planning uncertainties and risks are still massively higher as a result of the coronavirus pandemic. The constant emergence of new variants means that infection rates worldwide have so far not been effectively reduced. For the global economy, the prospect of further waves of infection and the associated countermeasures is the central forecasting risk for the coming months. This uncertainty has led to considerably higher volatilities in the valuation of assets, placing a significant burden on the global banking sector in terms of income expectations, risk provisioning and capital requirements.

With the future course of the coronavirus pandemic still uncertain, neither industry nor the trade and service sectors are likely to be able to contribute much to economic growth in the first few months of the current year. Business with corporate and small-business customers will therefore remain under pressure in the first half of the year. A recovery should gradually take shape in the second half of the year, however. German banks' interest and commission business will benefit from the revival of the export industry, which is so important for the country's economy. The weakness of the euro against the US dollar as a result of the interest rate differential strengthens the price competitiveness of German exporters. Retail banking business is likely to benefit from private consumption, which is set to pick up considerably again in the next few months after people largely tended to prioritise saving during the coronavirus crisis. Demand for residential mortgages is also likely to continue unabated, driven by the lack of affordable housing and the related boom in new building, and in particular by the persistently low level of interest rates. However, retail banking business continues to offer only limited income potential due to the strong national competition among banks and the narrow interest margins.

Even before the coronavirus crisis, the prospect of prolonged low interest rates was seen as one of the key challenges for the banking sector. Central banks reacted to the far-reaching economic impact of the pandemic with bond purchase programmes, extensive liquidity provision and a zero interest rate policy. This has improved banks' liquidity position and financing situation, but at the same time puts ongoing pressure on interest margins and thus adversely impacts income in the financial sector.

Government lending programmes are also having a negative impact on banks' interest margins and profitability. Achievable net interest margins are therefore very low throughout Europe, but particularly in the German banking market. At the same time, refinancing costs have risen due to the growth in customer deposits.

The extremely accommodative monetary policy is reaching its limits, and the global interest rate markets are positioning themselves for a fundamental regime change. Inflation has risen sharply all over the world, and the rapid pace of this inflation is pushing more and more central banks towards abandoning their expansive monetary policy. That is why the Bank of England announced a first interest rate rise in mid-December 2021, and why the US Federal Reserve is implementing tapering measures in the form of reduced bond purchases. The Fed is also considering raising key interest rates in several small steps during the current year. By contrast, the ECB is so far anticipating only a temporary rise in inflation. It therefore intends to maintain its extremely expansive monetary policy for the time being and not raise its key interest rate in the foreseeable future. As such, the interest rate-related pressure on income in the European banking sector is set to continue. Even the two-tier system for reserve remuneration implemented by the ECB, which exempts part of banks' excess liquidity holdings from the negative deposit rate, only mitigates the negative consequences of the low interest rate environment to a limited extent. To increase revenues in the highly important interest business, banks are not only raising lending rates and fees but also introducing negative interest rates across the board in the form of custody fees on customer deposits. All in all, there is currently barely any scope for the vast majority of banks in the German market to improve their margins across the board.

Long-term loans increase the banking sector's exposure to interest rate risks and harbour the risk of losses in the value of property pledged as loan collateral. According to the Bundesbank, residential property prices in Germany – including outside of metropolitan areas – were up to 30% above the level justified by fundamentals even back in 2020. According to the Association of German Pfandbrief Banks, the overall residential index in Germany rose further in the first three quarters of 2021 by a cumulative 11% compared with 2020. A further significant increase in housing prices is also expected for the current year. In parallel with the rising prices, the sum of housing loans granted by German banks to domestic private households, by far the largest group of borrowers, is also likely to increase after having already risen in the first three quarters of 2021.

Against this background, in its most recent Financial Stability Review published in November 2021 the ECB called for macroprudential measures in the financial sector to counter developments in the German residential real estate market. In mid-January 2022, the Bundesbank's financial stability committee then proposed stricter capital requirements for German banks. The Federal Financial Supervisory Authority is therefore planning to raise the countercyclical capital buffer from the current 0% to 0.75% by 1 February 2023 and introduce a sectoral systemic risk buffer of 2.0% of risk-weighted assets on loans secured by residential real estate.

The outlook for trading business is more favourable than for the dominant interest-bearing business, although many institutions have already withdrawn partially or even completely from this area of activity. Even the current boom in cashless payment transactions is only benefiting banks' commission-bearing payment services business to a limited extent due to strong competition from fintech companies. This market segment remains fiercely competitive, with online banks, fintech companies and big tech players such as PayPal, Apple and Google looking to further increase their market share, especially in digital payments. Services such as Klarna's "Buy now, pay later" offering are having a marked impact on consumer behaviour. Cryptocurrency custody and trading services are also becoming more important. By contrast, the outlook for banks' securities commission business is better than that for payment transactions. It is highly likely that the number of private shareholders in Germany will continue to increase over the next few years due to the lack of investment alternatives in the low interest rate environment. This will benefit direct banks in particular, as they are likely to see further significant growth in new customers. The growing popularity of digital and mobile products has also led to increased demand for individual financial advice among bank customers in recent months, however, as they are less comfortable with technology and hugely unsettled by the economic turbulence. Given the existing demand for advice on complex banking transactions such as retail mortgage financing, branch business will therefore remain part of the basic service provided by banks, albeit in a pared back form.

In view of the income problems and ongoing competitive pressure, cost reduction remains the main issue both for German banks and for their European competitors. As a result, digitalisation of business processes and the utilisation of the data generated will advance rapidly. The pandemic has already massively accelerated the trend towards digital banking services. This calls for highly automated IT processes and comprehensive data analytics measures that permit rapid adjustments in response to changing market conditions.

The trends in customer behaviour that have been accelerated during the crisis – more online banking and new payment habits – are set to continue. Engagement banking puts the focus on the customer, with services and solutions tailored to their requirements. Financial institutions that focus increasingly on customers' use of multimedia channels and offer a wide range of online banking tools, robo-advisory services and tailor-made financial solutions will be at an advantage in the future. This is encouraging the increasing shift away from branch-based retail banking, resulting in efficiency gains and a reduction in the range of products and services but also making it more difficult to generate commission income. In addition to ever shorter innovation cycles and faster product delivery, the new digital business models also entail the use of new technologies such as the cloud and artificial intelligence. At the same time, despite the pressure to innovate and reduce costs many traditional banks are faced with the challenge of ensuring the quality and stability of their IT systems, protecting themselves against the growing threat of cyber attacks and maintaining the integrity of their data.

Against this background, the German banking market in particular is on the brink of a major upheaval. In the longer term, the number of banks will be drastically reduced and competition will further intensify as more and more global technology groups, fintechs and foreign banks, along with market infrastructure providers such as stock exchanges, clearing houses and information service providers, offer a selection of traditional banking products. It seems unlikely that competitors from the tech segment will provide a full range of banking services, however. A significantly stricter regulatory framework for financial market players outside of the traditional banking sector, as recently advocated by the Bank for International Settlements (BIS), is also likely to limit the current competitive advantages of young fintech companies in the foreseeable future. Ultimately, European banks must continuously invest in improving their digital competitiveness to avoid losing their direct access to customers and the data advantage that goes with it. This will require a huge effort given their weak income situation. Positive returns can only be achieved through additional cost reductions and further expansion of commission-based business areas.

In the long term, the banking sector will be shaped by the further development of the European monetary union into an integrated financial market union. The aim of the European Commission's digital finance strategy is to establish a financial market that applies uniform EU-wide rules and thus ensures technology neutrality and sustainability as well as identical framework conditions for all providers.

Many banking markets in Europe are still shaped by national legislation, with at times significant divergence in terms of regulations and customer requirements. There is also overcapacity almost everywhere, which reduces profitability. Although the market consolidation process is continuing, with the number of banks falling steadily both in Germany and in Europe over the past few years, this has mainly involved smaller banks being taken over or merged with one another. Greater consolidation is being prevented above all by the marked rise in the risks associated with takeovers and mergers compared with the past, which is due to the increasing importance of technology for sales channels.

For the time being, the target of European banking union remains unachieved, with the lack of an EU-wide deposit insurance scheme (EDIS) in particular preventing further market integration. This in turn means that countries still have a great deal of scope for national discretion when it comes to banking regulation. Progress is being made, however, with the completion of the Basel 3 capital rules. Basel 4 (officially Basel 3: Finalising post-crisis reforms) contains regulatory innovations that have not yet been (fully) incorporated into the Capital Requirements Regulation and Capital Requirements Directive. As these are recommendations, all EU member states need to transpose them into national law. Basel 4 introduces new standards that banks must use to calculate their capital requirements. These include enhanced risk sensitivity of the standardised approaches, a rising leverage ratio for global systemically important banks (G-SIBs), more detailed disclosure of reserves and credit risks and a standardised floor for risk-weighted assets (RWA). Under the latter, the capital requirement must not fall below 72.5% of the requirement under the standardised approach (output floor). In addition, internal models are no longer to be used to determine capital requirements for operational risks. The Basel 4 reforms were originally scheduled to come into effect in January 2022, but were postponed as a result of the coronavirus pandemic. Definitive implementation in the EU is now scheduled for 2025 onwards. The UK has also eased its timetable for implementing the Basel standards.

In addition to the way in which we will use money in the future, and the role of central bank money in this, banking regulation is focusing increasingly on the management of ESG (environmental, social and governance) risks. Climate change in particular is one of the great challenges of our time.

With this in mind, the EBA intends to embed climate and environmental risks more firmly in banks' risk management processes over the next few years, including mandatory disclosure of climate risks and a climate stress test in the current year. Climate risks are also set to be a focus of future ECB stress tests, enabling banks to better assess their consequences for their business environment. According to the Bundesbank, the German financial system is well equipped to overcome the risks arising from higher taxes on fossil fuels on the journey to a climate-friendly economy. However, the financing requirements of the European Commission's planned green deal could lead to green quantitative easing. This is new, and moreover not uncontroversial, because to date none of the world's central banks have pursued a monetary policy that is explicitly oriented towards climate protection goals.

The National Bank of Poland (NBP) began to hike its key interest rate in October 2021 after previously cutting it in response to the coronavirus crisis. The increasingly restrictive monetary policy is helping to improve interest margins in the Polish banking sector. It remains to be seen, however, whether a decline in the quality of the loan portfolio will lead to significantly higher risk costs and increased loan defaults. The economic environment is still extremely fragile, and sharp rises in consumer prices are impacting the real disposable income of private households. Overall, bank earnings are likely to remain under pressure, while the trend towards consolidation in the Polish banking market is set to continue.

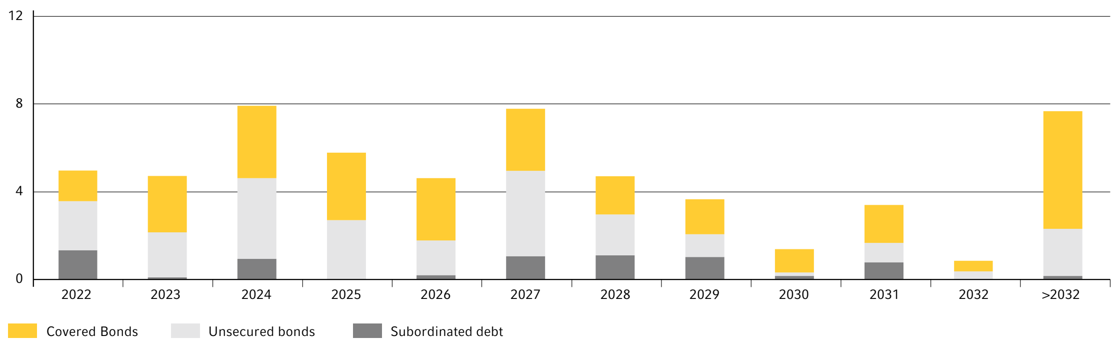
Financial outlook for the Commerzbank Group

Planned funding measures

Due to participation in TLTRO III and the optimisation of risk-weighted assets as part of the new business strategy, the funding plan for 2021 was reduced from the original volume of less than €5bn to less than €3bn. The funding plan for 2022 envisages a return to a somewhat higher volume of just under €5bn. Commerzbank's borrowing on the capital market is influenced by the TLTRO refinancing option and the optimisation of risk-weighted assets as part of the new business strategy.

Commerzbank has access to the capital market through a broad range of products. In addition to unsecured funding instruments (preferred and non-preferred senior bonds, Tier 2 subordinated debt and Additional Tier 1 capital), Commerzbank can also issue secured funding instruments, in particular mortgage Pfandbriefe and public-sector Pfandbriefe for refinancing purposes. As such, Pfandbriefe are a key element of Commerzbank's funding mix. These give Commerzbank stable access to long-term funding with cost advantages compared with unsecured sources of funding. Issuance formats range from large-volume benchmark bonds to private placements.

Group maturity profile of capital market issues as at 31 Dezember 2021
€bn



By regularly reviewing and adjusting the assumptions used for liquidity management and the long-term funding requirement, Commerzbank will continue to respond actively to changes in the market environment and business performance in order to secure a comfortable liquidity cushion and an appropriate funding structure.

Planned investments

Commerzbank is planning a total of €1.7bn in direct costs for IT investments under "Strategy 2024", €0.5bn of which relates to the 2022 financial year. Just under half of the investment for the current year relates to the restructuring of the business model and the digitalisation of retail banking business. The other half will be invested in the further digitalisation of processes in corporate client business, the IT infrastructure and regulatory measures.

Private and Small-Business Customers

The main investment targets for the branch bank in 2022 are the central initiatives relating to the "Strategy 2024" programme.

In the Private and Small-Business Customers segment, Commerzbank is building on the milestones achieved in 2021 to further develop the digital and personal customer relationship management model. The main focus is on creating a digital advisory bank – complete with comprehensive mobile offerings – and achieving greater penetration of the Wealth Management, Private Banking and premium Small-Business Customers segments through supplementary services and personal advice.

The migration to our digital platform ONE will be largely completed in 2022. Other key service and product-relevant functions will also be implemented in the areas of accounts, cards, deposits and securities, along with functions relating to the creation and management of personal data.

The technological foundations laid in 2021 to ensure an individualised customer approach across all sales channels will be further expanded in 2022.

Particular emphasis will be placed on the stability and optimisation of securities transaction processes and on the further development and digitalisation of securities products. Our new "money mate" securities solution, due to launch in 2022, is not just another product but the start of a new and innovative concept for digital asset management.

A large portion of the investments will support the ongoing digitalisation of lending platforms in order to optimise customer service during the application process, particularly in retail mortgage financing. To facilitate the rollout of the new application process for retail mortgage financing planned for 2022, further investment is required to acquire the relevant software and adapt it to customer-specific requirements. Commerzbank is also planning further investments in the existing loan process to digitalise existing manual processing steps and achieve further efficiency gains. With regard to instalment loans, the focus is on expanding omni-channel capability and the ability to conclude transactions in the banking app. In deposits, we plan to further grow our digital customer offering and at the same time create a significantly improved customer experience. This includes ongoing end-to-end digitalisation of the settlement process for time deposits.

A large portion of the investments will be used to expand the online banking channel. The focus here is on implementing a new technological base and a new customer experience. To this end, we are gradually creating a completely new approach to day-to-day banking services, offering customers a modern and functionally improved customer experience for online payment transactions and an overview of their finances and transactions. A financial analysis function is also being rolled out in online banking, giving customers a simple way to obtain an overview of their financial situation.

The systematic expansion of the banking app to create a complete sales and service channel will also be continued in 2022. Planned measures include further expansion of the financial analysis function and the introduction of the financial compass in the banking app to give customers a 360-degree perspective of their financial situation. Additional self-service functions will also be rolled out in the app.

Another area of investment is the future digitalisation of incoming and outgoing mail, with the aim of further enhancing the digital experience for our customers and making our processes more efficient. There is to be a further significant reduction in paper consumption, with documents made available in digital form whenever possible.

As well as establishing a digital bank in the German market, Commerzbank will continue to focus on improving the efficiency of its branch business in 2022. We are benefiting in this regard from the successful first stage in the expansion of the advisory centre. Commerzbank will press ahead with this expansion in 2022, with the aim of giving all customers 24/7 access to expert contact persons for day-to-day banking and needs-oriented advisory services.

In terms of regulation, the focus in 2022 will be on further consolidating "know-your-customer" (KYC) processes to ensure the effective and resource-efficient management of compliance risks. Key tasks will be the technical implementation of the next review date for individuals and legal entities, and preparation for the use of the workflow system already in place in the Corporate Clients segment as part of the KYC review process for legal entities. In addition, further investments will be made in connection with final implementation of the requirements of the EU's amended Markets in Financial Instruments Directive (MiFID) and the Disclosure Regulation for the technical integration of sustainability preferences into the Bank's investment advisory and asset management processes. Adjustments are also planned to implement the new guidelines published by the European Securities and Markets Authority (ESMA) on appropriateness and execution-only requirements, and due to the expiry of the transitional periods in the EU's PRIIPs (packaged retail and insurance-based investment products) Regulation. Furthermore, the technical foundations are currently being laid to ensure that customer consent required for contract amendments can in future be obtained on a process-specific basis.

Corporate Clients

Investments in the Corporate Clients segment in 2022 will continue to focus on the implementation of Commerzbank's strategic objectives, targeting the development of a business model offering differentiated, efficient relationship management, the creation of the technical infrastructure and further digitalisation projects.

Commerzbank focuses on German SMEs, large companies and institutional customers. The restructuring of its local presence will be continued by bundling back office functions in regional service units and optimising the correspondent bank portfolio. The transformation will be further advanced by converting sales locations while con-solidating platforms at the same time.

Profitability will be significantly increased, for instance by further digitalising processes, optimising pricing and, in particular, making greater use of data-driven services. The product range will be made more efficient and increasingly digital.

Investments in transaction banking will focus on modernising the system landscape for payment transactions. The worldwide migration of payment transactions networks requires further investment in system adaptation both in Germany and abroad.

To further digitalise the Trade Finance product range and thus make it even more attractive for our customers, there will be further investment in products based on distributed ledger technology and in cooperations that offer additional benefits for our customers.

Further improvements in communication between IT systems will enable us to work even more closely with our customers and partners.

IT & Operations

Commerzbank will continue the ongoing optimisation of its IT structure in 2022, with further significant investments in the expansion of cloud technology and the digitalisation of the workplace environment.

Commerzbank therefore remains on track with the digitalisation and streamlining of its business. On the IT side, the Bank will also focus on modernising the IT architecture and putting the technological base on a more professional footing.

The transaction banking business will see further investments in the renewal of the system landscape for payment transactions, with a view to establishing a solid basis for expansion with additional products. The worldwide migration of payment transactions networks for consistent use of ISO20022 XML messages will also require investment in order to adapt systems both in Germany and abroad.

The digitalisation of the product range will also continue. In addition to digital account management and the expansion of functions in the online portals, the focus is on account access via APIs (application programming interfaces), virtual accounts and expanded SWIFT services.

In the current financial year, we are also anticipating a growing need for investments in connection with the implementation of regulatory requirements. Investments to further optimise costs, increase automation and boost IT and operational stability are also planned.

Anticipated liquidity trends

The short-term repo market in high-quality securities such as government bonds, agencies and Pfandbriefe (high-quality liquid assets or HQLA) is still functioning even in the face of the coronavirus pandemic and plays an important role in servicing the bond markets and financing portfolios.

The Eurosystem and its securities lending programme for holdings under the asset purchase programme (APP) and pandemic emergency purchase programme (PEPP) are important methods for meeting collateral requirements in trading activities, particularly with respect to German government bonds. Under the APP, the ECB intends to make net purchases of €40bn in the second quarter of 2022 and €30bn in the third quarter. The net purchases of assets are due to continue at a monthly rate of €20bn from October 2022 and will only be discontinued shortly before the next interest rate increase. Net purchases for the PEPP programme are set to be lower in the first quarter of 2022 than they have been to date, before then being phased out towards the end of March 2022. For the ECB, the question of which approach to adopt going forward will then hinge on the further course of the pandemic and on the inflation trend.

In addition to collateralisation for TLTROs, a further key driver of the HQLA collateral markets is demand due to the mandatory collateralisation obligation for over-the-counter (OTC) derivatives under bilateral initial margin requirements, as well as margin payments for derivatives and repos settled via central counterparties. Collateral eligible for discounting at the central bank is still in demand following the TLTRO increase in March 2021, meaning that the euro repo markets in HQLA will remain more expensive than the ECB deposit facility. We expect the market to remain at this level for as long as the ECB continues to provide support through monetary policy measures. Investors are generally less willing to make their collateral available over the medium term (longer than three months), meaning that the market for term repos still offers only limited liquidity, especially across important reporting dates.

The situation on the bond markets is also being shaped by the ECB's asset purchase programme and the high level of excess liquidity. Liquidity in the secondary markets, which in this context is already significantly reduced, will thus remain low. Despite rising government debt, we expect German government bond yields to remain very low, even in the long-term segment (yields are currently negative up to 30 years), due mainly to the ongoing high demand from the ECB. Demand for returns among financial investors will also continue to be very strong, causing credit spreads to remain tight.

Managing opportunities at Commerzbank

The demands placed on modern, sustainable banking business and the overall framework conditions have changed markedly in the past few years. Whereas personal customer relationship management was formerly a key element of banking, these days customers expect multi-channel advisory services, digital financial offerings and individual, tailor-made products that are available at any time. We have responded to this by continuously adapting our strategic direction over the past few years. The aim of the "Strategy 2024" programme approved in February 2021 is to combine the benefits of a fully digitalised bank with personal advisory services, an unwavering customer focus and sustainability. Our mission is to become the number one digital advisory bank in Germany. With our new positioning, we want to become more efficient and create sustainable prospects for our workforce, customers and shareholders.

Going forward, the Bank will consistently put profitability before growth, particularly when it comes to the efficient use of capital or adequate pricing of products and services. mBank will continue to press ahead with its explicit growth strategy as part of the Group, while Commerzbank will continue to expand its securities and residential mortgage loans business with retail customers despite the difficult operating environment.

At the same time, we are significantly reducing our costs so that we can operate profitably again over the long term. This is to be achieved by simplifying our location network, organisational structures, products, processes and customer relationship management model.

As part of its comprehensive digitalisation, the Bank will significantly streamline its branch network and expand its range of digital services. The remaining branches will provide advice on all aspects of accounts, cards and instalment loans, while many will also offer comprehensive relationship management on all matters relating to wealth management and financing. The round-the-clock relationship management services provided via the advisory centre will be significantly expanded, and we will systematically automate our business processes across the board. Within the credit process for private customers, this includes standardised products such as instalment loans or increases in credit card limits. We are gradually introducing an innovative direct banking offering – Mittelstandsbank Direkt – for corporate customers who require standardised products and advisory services. Corporate customers with complex advisory requirements will continue to benefit from personalised relationship management. Advice is being combined with innovative services such as the digital bank for companies and forward-looking, sustainable products. Data-based solutions and sales analytics support sales and enable efficient relationship management.

The targeted transformation encompasses strategy, technology, competencies and culture. Our subsidiaries CommerzVentures (a venture capital fund that invests in fintech, insurtech and climate fintech companies) and Main Incubator (a research and development unit for future technologies in the areas of ventures, prototypes and community building) have also been supporting us for some time. In the Private and Small-Business Customers segment, the transformation of the business model is based around two fundamental thrusts. First, to combine comdirect's digital expertise with Commerzbank's acknowledged advisory expertise. In the future, the Bank will provide advice in the form desired by the customer – be that virtually or in person. The advisory centre will be the central point of contact for our 11 million or so customers, bringing authentic advisory services to homes, offices or wherever customers need them. Commerzbank will also retain an extensive local presence through around 450 branches. Second, to exploit the huge growth potential in the German premium market and reposition Commerzbank's relationship management model for wealthy private individuals and small-business customers. In the future, both generalists and specialists covering a diverse range of customer requirements will be represented in premium branches at around 220 locations. By working closely with each other and with colleagues in the Corporate Clients segment, they will help the Bank ensure seamless customer service in both the private and the business sphere. Through this concept, we are laying the foundations to consolidate our position as the leading bank for German SMEs (the Mittelstand) and a strong partner to private and small-business customers. In the Corporate Clients segment, we will in future focus on offering a streamlined and digitalised product range to customers with a connection to Germany. We will continue to serve international corporate clients if they have business links with Germany or operate in selected future-oriented sectors such as mobility, sustainability, communications, life sciences and capital goods. Our international network remains an important building block.

Commerzbank is driving its cultural change with the aim of strengthening a performance culture geared to success. We also want to strengthen entrepreneurial thinking among our own employees by applying modern forms of cooperation and agile methods to develop innovative products. To support this, we have further developed Commerzbank's delivery organisation. The overarching purpose of this delivery organisation is to modernise the IT architecture while maintaining operational stability, expand capabilities and capacities, and develop new professional functionalities for our customers.

Customers now approach the Bank via various channels – offline, online and mobile. They expect these channels to be closely interlinked and provide a compelling range of products and services. We recognised this at an early stage, leading us to create a central multi-channel platform that includes the private customer and corporate customer portals along with the ONE advisor front-end. These have all been running in the public cloud since August 2021 and enable Commerzbank to offer its customers innovative services quickly, automatically and at a high level of quality. Little by little, instant banking is becoming the new normal.

Our transformation offers both potential cost savings and growth opportunities in future markets such as digital ecosystems, embedded finance, digital assets and sustainability. Our activities in the area of sustainability, one of the four cornerstones of our "Strategy 2024" programme, are based on ESG (environmental, social and governance) criteria. Given the clear evidence of the impact of climate change, we are currently focusing more heavily on climate protection. For some time now we have been helping to manage a significant volume of our customers' green and social bond issues. We have also issued our own very successful green bonds, acted as joint lead manager in the issue of the German federal government's first green bond, expanded our range of more sustainable investments with the new klimaVest mutual fund, and are now one of the leading providers of financing for renewable energy projects in Germany and Europe. One key area of focus is the provision of financial support for the transition to tomorrow's low-carbon economy. Further information on our sustainability strategy can be found in the combined separate non-financial report on page 40 ff.

Overall, we are convinced that rigorous implementation of the measures already initiated and those recently adopted will enable us to create added value for our customers, employees, investors and shareholders, and for society as a whole. We have a clear goal in mind: to create a strong Commerzbank that is fit for the future.

Anticipated performance of the Commerzbank Group

With the "Strategy 2024" programme adopted in February 2021, Commerzbank has paved the way for a far-reaching transformation of the business model designed to place the Bank on a more efficient footing. A sustainable increase in profitability is being given a much higher priority than business growth. The goal of the transformation is to achieve a return on equity of more than 7% by 2024.

The cornerstones of the strategy include the comprehensive digitalisation of business activities and internal processes along with further expansion of the Bank's strengths, such as a high level of advisory expertise and customer focus. Our ambition is to become the leading digital advisory bank in Germany, combining the benefits of a fully digitalised bank with personal advisory services in order to secure our competitive position and further strengthen it over the long term. To better comply with its social responsibility to achieve climate targets, Commerzbank has anchored sustainability as a strategic cornerstone of its banking activities. This will enable it to take advantage of the opportunities that arise from supporting corporate and small-business customers in their transformation to a sustainable economy. The Bank offers a growing number of sustainable financing and investment products for private customers. At the same time, it will be judged on its efforts to achieve a continuous and significant reduction in its own carbon footprint and to make the Bank climate-neutral in the long term.

Despite the more difficult operating environment as a result of the ongoing pandemic, Commerzbank achieved key milestones in the 2021 financial year in line with its ambitious plans. The comprehensive restructuring will be continued systematically this year, with a particular focus on maintaining the high speed of implementation and constantly reviewing the progress made in order to initiate any adjustment measures that may become necessary. The agreement reached with the employee representative committees last year on the implementation of the HR measures means that specific individual contractual agreements have already been concluded in a socially responsible manner for more than half of the employees affected by the planned headcount reduction. These will reduce the cost base to an increasingly large extent over time. With a volume of around €2bn, mainly in the past two financial years, Commerzbank has now borne almost the entire cost of the restructuring measures required over the full period of the transformation. The impact in 2022 is likely to only be in the double-digit millions. This has created the basis for substantially reducing total operating costs by €1.3bn or around 20% by the end of 2024 compared with the starting point in 2020. More than one-third of the total journey, which aims to achieve a vastly improved cost/income ratio of 60%, will have been covered by the end of the current year. Investments of €1.7bn are also planned for the period from 2021 to 2024, targeting the development and expansion of digital expertise and structures and the comprehensive modernisation of the IT infrastructure.

Commerzbank expects the exceptionally challenging operating environment for the German banking sector to persist throughout 2022. The high degree of uncertainty, particularly with regard to the further course of the pandemic but also in relation to other aspects such as the geopolitical situation, means it is significantly more difficult to make economic forecasts. As such, we have to expect a higher range of fluctuation in the factors that influence banking business. The sharp increase in volatility in numerous segments of the international capital markets since the beginning of the year clearly demonstrates that major deviations from assumptions are possible over the course of the year with regard to expected credit demand or the forecast development of customer activity in the securities business. While future interest rate trends at both the short and long end of the yield curve, which are currently difficult to assess, should primarily result in additional income opportunities, new risks may also arise. Driven by the variation in the rate of inflation, interest rates in the two core markets of Germany and Poland have been moving at very different speeds since autumn 2021. While Poland's key interest rate has already been raised five times since last October, taking it from its low of 0.1% to 2.75%, the ECB's refinancing rate remains negative at −0.5%. Our forecast assumes that the ECB will maintain this interest rate until the end of 2022. In this difficult environment, which is still characterised by intense competition, Commerzbank nevertheless considers itself to be in a very robust position. This is due in part to the tangible progress made with the transformation process. The Bank also has an attractive risk profile by international standards that demonstrated a high degree of resilience to the pandemic-related stress test. In addition, the capital ratios reported are well above the regulatory minimum, reflecting the good risk coverage potential. The consistent and effective management of all risks will continue to be of paramount importance for Commerzbank.

The extraordinarily challenging environment, which is characterised by uncertainty and numerous imponderables, is reflected in the forecast that total operating income in the 2022 financial year will be roughly on a par with the previous year. This is based on the assumption that the high level of income resulting from the fair value measurement of assets will not be repeated on the same scale as in the previous year. However, we anticipate a slight upward trend in income relating to customer business, namely the sum of net interest income and net commission income. Net interest income at mBank, which is benefiting from increases in Poland's key interest rate that are boosting margins, is an especially positive contributor in this regard. This figure already takes into account an expected reduction in the number of private customers as a result of the Group's far-reaching restructuring. Commerzbank is expecting a risk result of less than €−0.7bn.

Total operating expenses (including compulsory contributions) are set to be reduced to around €6.3bn in the current year, reflecting cost savings potential already realised from the transformation of the business model. Overall, Commerzbank is aiming to post an operating profit of significantly more than €1bn in the 2022 financial year. Net income is also expected to be above €1bn, enabling shareholders to participate in the Bank's success through the payment of a dividend.

Anticipated performance of individual earnings components

Net interest income, the key source of income, is expected to be slightly higher year on year under the baseline scenario, which does not envisage any material changes in the key eurozone interest rates. In the Corporate Clients segment, the main focus during the current phase of the transformation is on making more efficient use of capital resources. Restricting activities to selective growth focusing primarily on SME customers and discontinuing non-strategic business, mostly abroad, will result in subdued lending growth and thus tend to lead to a slight decline in interest income. The Bank anticipates lending volumes in retail banking business will grow at a slightly slower pace than last year, particularly for mortgage loans and loans to business and small-business customers. Additional interest income from lending business, together with a further rise in income from passing on negative interest rates – corporate client business is also expected to make a positive contribution here – will probably be able to offset the once again lower interest income expected from deposit business. The extraordinary income from longer-term refinancing transactions with the ECB reported under net interest income will decrease substantially compared with the previous year and is expected to be more than halved. mBank will likely record a very positive improvement in net interest income, due in part to a significant expansion in both lending and deposit volumes. The sharp rise in key interest rates in Poland since October 2021, which most economists predict will be followed by further rate increases over the course of the year, should also open up considerable scope for margin improvements.

Net commission income is expected to decline slightly in the current financial year. This decrease is based in part on the assumption that losses in commission business will result from both customer attrition due to branch closures in retail banking business, which was expected but did not arise in 2021, and from the planned withdrawal from less attractive markets in corporate client business.

Net income from financial assets and liabilities measured at fair value through profit or loss is generally subject to increased volatility, which can be influenced only to a limited extent. This is due in part to the fundamental uncertainty regarding developments on the global capital markets. Accounting rules are a factor too. Sometimes they may require similar items to be presented as fair value measurements in the fair value result in one time period, whereas the interest component dominates in another. Year-on-year shifts between the income items net interest income and fair value result – and vice versa – are therefore possible. A portion of this income component is therefore directly related to net interest income. With its risk-oriented and customer-focused approach, Commerzbank, like mBank, seeks to achieve income that is as high and stable as possible. After accounting for a high proportion of total Group income in the 2021 financial year, the fair value result is expected to be significantly lower in the current year.

Experience has shown that the other income items, including realised profit or losses on financial instruments and other net income, are often affected to a large extent by one-off income and measurement effects that are usually impossible to predict. Overall, a negative figure in the triple-digit millions is again forecast for the 2022 financial year. Although further charges cannot be ruled out in respect of the provisions for legal risks in connection with mortgage loans issued in foreign currencies at mBank, whose effects are reflected under other net income, no material expense is expected for 2022 following the provisions accrued in 2021, which also took into account a voluntary settlement offer to debtors.

Commerzbank is aiming to limit the risk result to €–0.7bn in the current financial year. This forecast also reflects the ongoing high degree of uncertainty that a continuation of the coronavirus pandemic could delay and/or negatively impact the extent of the expected economic recovery. In our opinion, however, the provisions of more than €–0.5bn that continue to be recognised specifically for potential charges arising from the coronavirus pandemic will cushion the risks of a worse-than-expected economic scenario that may prevail over a longer period of time. A higher risk result is also expected at mBank, but the increase is set to be lower than the anticipated double-digit growth in lending volume.

The measures initiated last year for the far-reaching restructuring of the Group, in particular the agreements reached on implementation of the HR measures, will lead to marked cost reductions in the 2022 financial year. Accordingly, operating expenses (including compulsory contributions) are expected to be some €400m lower at around €6.3bn despite extensive investment in measures such as the comprehensive digitalisation of the service offering and foreseeable cost inflation in some areas. Within this, the amounts that can be influenced only to a limited extent, primarily for the European banking levy, the Deposit Protection Fund and the Polish bank tax, will in all likelihood increase substantially. mBank has budgeted for a significant increase in operating expenses, also due to inflation, but at a considerably lower rate than the increase in operating income.

Provisions for restructuring expenses linked to the implementation of the “Strategy 2024” programme have already been recognised almost in full in the past two financial years. An allocation in the double-digit millions is all that is planned in 2022.

Anticipated segment performance

Private and Small-Business Customers

The Private and Small-Business Customers (PSBC) segment is aiming to make further progress this year with the far-reaching restructuring of its sales model, culminating in a combination of two business models – a digital direct bank with particular expertise in securities business and a branch-based full-service bank offering a broad product range and expert, in-depth personal advisory services – that is unique in the marketplace. The next strategic steps to be taken by the end of the year include the launch of new digital applications, which will enable more banking products to be concluded online, and the provision of more opportunities for customers to resolve their own service issues quickly and easily via online and mobile banking. This goes hand in hand with the continued development of the advisory centre, through which all customers will have convenient access to personal telephone support at all times. This also includes standardised investment advice via an investment centre and mortgage advice via digital direct sales.

The target structure of 450 branches throughout Germany is set to be achieved over the course of the year after the closure of around 100 further branches. Of these, 220 are premium branches that will cater to the needs of discerning small-business customers and wealthy private individuals requiring individually tailored banking products. They will also offer the self-service infrastructure of the advisory points. The objective at the end of the restructuring phase is to seamlessly link all sales channels so that all customers, whatever stage they are at in their lives, are offered the most suitable banking product at the ideal time and via the appropriate channel.

The current financial year will see a gradual change in customer relationship management, with customers responding to the ongoing reduction in the number of branches by increasingly contacting the advisory centre to seek advice, buy products and resolve service issues. These changes in the sales model mean we are cautious about the current year. We are anticipating a temporary slowdown in customer activity and a slight fall in the number of active customers. In lending business, this is expected to lead to slower growth in the credit portfolio due to lower new business volumes, particularly in mortgage lending and loans to small-business customers. In addition, maturing loans with higher interest rates will be replaced by financing at somewhat lower rates. The same applies to income from investments refinanced with modelled deposits, meaning that the low level of interest rates will once again result in a slight decline in the average interest margin in lending and deposit business. A further significant increase in income from deposit fees is expected to offset the volume and margin effect.

In addition to the temporarily more noticeable restraint on the part of customers due to the restructuring of the sales model, we believe that the exceptionally good environment in securities business over the past two years will be considerably less favourable in the current year. Our baseline assumption is a decline in volatility on the capital markets as an end to the pandemic becomes more likely, which will probably result in significantly lower transaction figures over the course of the year. A sharp fall in transaction-related commissions is therefore likely. Portfolio-related commissions should remain at a high level, however. Ongoing initiatives to convert customer deposits into investment products delivering significantly higher yields, for example sustainable investments such as the klimaVest impact fund, offer income potential.

The Bank is also targeting higher income from asset management. It will seek to expand its market position, particularly among discerning small-business and wealth management customers who require tailored premium solutions. Income from payment transactions will also grow, primarily from card business as customer mobility increases. We expect the amended pricing for account management services will translate initially into only a stabilisation of commissions realised in the current year, as it will also lead to a higher number of customer departures. Experience has shown, however, that the associated loss of income is limited and mainly affects customer relationships with very low product usage. Overall, we expect total domestic operating income to be significantly below the prior-year level.

The subsidiary mBank is aiming to continue its growth strategy of the past few years and should be able to benefit from the much improved interest rate environment this year. In contrast to the eurozone, the change in policy by the Polish central bank has resulted in a clear upward trend for interest rates since autumn 2021, with markedly positive effects for interest margins. Strong double-digit income growth is expected, primarily from lending business, even though measures to curb the high rate of inflation through further increases in the key interest rate could, depending on their extent, limit the targeted significant increase in lending. Commission-bearing business is expected to settle down following very significant growth in the past two years. Following the extensive provisions recognised in the previous year for legal risks in connection with mortgage loans issued in foreign currencies at mBank, which had a negative impact on earnings, no further charges are expected.

Thanks to the marked improvement in mBank's financial performance, total operating income in the PSBC segment is expected to significantly exceed the prior-year level.

As part of the implementation of the strategic measures, further extensive investments in the restructuring of the sales channels are planned for the current financial year. These include in particular the build-up of the advisory centre and the ongoing digitalisation of products and processes, the aim being to achieve the target structure of 450 branches – after the closure of a further 100 branches – with no discernible impact on customers. Measures introduced in the previous year to improve efficiency will also have an increasingly positive effect on costs over the course of the year. Total domestic operating expenses will fall significantly year on year, due in particular to the intended reduction in personnel expenses, although a small offsetting effect is expected from compulsory contributions.

At mBank, operating expenses (including compulsory contributions) are expected to increase significantly due to inflation and in connection with the planned expansion of business volume. However, this increase is set to be disproportionately lower than the growth in operating income.

We are anticipating a slight reduction in operating expenses for the PSBC segment as a whole in the 2022 financial year.

We remain cautious about the risk result and are expecting a significant year-on-year increase under the baseline scenario. This forecast reflects the high degree of uncertainty about whether or not a lengthy delay in economic recovery could have a more tangible impact on the quality of the loan portfolio, which is considered to be high. mBank is also anticipating a higher risk result, which is likely to increase on a similar, albeit somewhat smaller scale than in Germany and also reflects the comparatively larger expansion in lending volume.

We are forecasting a substantial increase in operating income and a slight decline in operating expenses for the PSBC segment as a whole, offset by a significantly higher expected risk result. Operating profit is therefore expected to improve markedly to around €1bn in the 2022 financial year. The operating return on equity is likely to increase to a similar extent, while the cost/income ratio is expected to improve markedly.

Corporate Clients

During the current financial year, the Corporate Clients (CC) segment will seek to further improve its cost/income ratio and the efficiency of capital employed without compromising its strong market position with German SME customers and international companies who have business links with Germany. Corporate clients will continue to benefit from Commerzbank's strengths such as its acknowledged high level of advisory expertise and strong presence in international trade corridors. However, the scope of support offered and the product range will in future be more nuanced according to customer needs in order to improve the profitability of customer relationships. Going forward, many of the demands of corporate clients can be met much more efficiently via the digital product and service offering of a modern direct bank. After withdrawing from six European and Asian locations in 2021, the Bank will further streamline its foreign network as planned and will have closed ten locations in total by the end of the current year. As has already happened with the outsourcing of institutional equities business to ODDO-BHF, cooperations offer alternative and efficient ways of serving our corporate clients. Through our partnership with Erste Group, we are taking advantage of selective growth opportunities in five Central and Eastern European countries.

Other strategic measures in the current year include the ongoing implementation of a new lean branch concept at selected locations in Western Europe and addressing further target customers in certain promising sectors in which Commerzbank has particular expertise. Based on the planned digitalisation of the product range and of internal processes, extensive data analyses should also support the efficient use of capital resources for customers who require a high level of intensive individual support and offer corresponding income potential. They will also enable Commerzbank to identify insufficiently profitable customer relationships that only use a small part of the Bank's range of services, and to terminate these relationships where necessary. RWA efficiency therefore remains a key management metric for the implementation of strategic measures.

In the current financial year, the CC segment is seeking to achieve selective growth with a stronger focus on target regions and sectors with core customers who expect a broad range of services and a high level of advisory expertise. A more focused international presence and further optimisation of the needs-based customer approach are also likely to result in lower activity among some customers, although this is not expected to lead to a significant drop in income. Given the continuing uncertainty with regard to the economic outlook, companies' financing requirements in terms of capital expenditure are expected to remain subdued, meaning only modest credit growth. As a result of the objective to focus on income opportunities in business areas with above-average capital efficiency, income growth is expected primarily in capital market business and in transaction banking. The more intensive servicing of corporate clients in the defined future-oriented sectors is also expected to result in higher earnings contributions. The forecast of a significant fall in total operating income in corporate client business in the 2022 financial year is based primarily on the cautious assessment with regard to income that is based on changes in fair value, where we are expecting a sharp decline.

Numerous measures to improve efficiency, in particular by reducing personnel expenses, have already been initiated and will have an increasingly positive impact on costs over the course of the year. Despite significant strategic investments, such as the establishment of the direct bank and the ongoing digitalisation of products and processes, the Bank is targeting a significant reduction in total operating costs for the 2022 financial year. This decrease, however, will be offset somewhat by an increase in the cost of compulsory contributions.

Following the very positive trend in the previous year, with risk provisions for corporate clients kept at a low level despite the very challenging phase of the coronavirus pandemic, we are cautious about the current year and expect the risk result to roughly double in size.

Overall, declining income and the substantially higher risk result will be offset by considerably lower operating expenses. We therefore expect a significant decrease in operating profit, which will be reflected in a lower operating return on equity. The cost/income ratio should nevertheless show a slight improvement.

General statement on the outlook for the Group

Commerzbank expects to achieve further milestones in the Group's transformation towards greater efficiency and profitability in the 2022 financial year and is targeting an operating profit significantly in excess of €1bn. With operating income at the prior-year level and a risk result of up to €–0.7bn, the reduction in total operating expenses to around €6.3bn is set to be the main driver of the expected marked improvement in operating profit compared with the previous year. With the Bank only planning a further expense item in the double-digit millions for future restructuring measures, a consolidated profit of more than €1bn is forecast after deductions for tax expense and non-controlling interests. The return on equity would therefore more than double compared with the previous year.

Commerzbank's target for its Common Equity Tier 1 capital ratio is based in part on the capital requirements resulting from the Supervisory Review and Evaluation Process (SREP). The ECB, as the responsible supervisory authority, has set this minimum requirement at an essentially unchanged level of 9.4% for the 2022 financial year. Commerzbank's management also calculates a capital buffer that is deemed appropriate to cover potential unexpected stress situations. Commerzbank intends to maintain a Common Equity Tier 1 ratio of more than 13%, significantly above the regulatory requirement imposed by the ECB, for the entirety of the 2022 financial year. This target compares with the ratio of 13.6% reported as at the end of 2021. The Bank therefore believes it has a sufficient capital buffer that already comfortably covers the additional countercyclical capital buffers to be held in the future in the UK (from December 2022: 1%) and Germany (from February 2023: 0.75%; plus a systemic risk buffer of 2% for residential real estate loans), which together add up to an effect of some 70 basis points on capital.

This solid capitalisation reflects the high risk-bearing capacity demonstrated during the exceptionally challenging phase of the pandemic. It also underlines the ambition to follow the intended payment of a dividend for the 2022 financial year with further attractive distributions to shareholders in subsequent years.

Nonetheless, there are numerous risk factors that could affect the 2022 profit forecast to a considerable, though not reliably quantifiable extent, should events take an unfavourable turn. These include, first and foremost, exceptionally high global economic risks. It is still not possible to reliably estimate either the duration or likely extent of the coronavirus pandemic. Geopolitical risks, which can significantly reduce existing inflationary trends through the massive increase in raw material prices, also have the potential to weaken the expected economic recovery and thus have an impact on our business development. So the war in Ukraine affects both our business with Ukraine and our business with Russia. We assume that sanctions relating to individual business partners (for example, the exclusion of large Russian financial institutions from the SWIFT banking communications network or the prohibition of US dollar clearing with large Russian banks) or entire industries (for example, the energy or raw materials sector) will also have an impact on Commerzbank. In addition, we expect Russian countersanctions to have an impact on Commerzbank's portfolios. We closely monitor further developments and continuously adapt our risk assessment and business policy. Commerzbank strictly follows the sanctions at all times. Moreover, trade disputes between the economic blocs Europe, North America and Asia, triggered by political tensions, remain possible.

Signals, chiefly from the US Federal Reserve, pointing to a turnaround in monetary policy have triggered a significant increase in volatility across numerous segments of the global capital markets since the beginning of 2022. With some valuations extraordinarily high by historical standards, especially on the bond and equity markets, the value corrections that have occurred to date could become even more pronounced as the year progresses. With their extensive toolkit, to which they have added a raft of unconventional monetary policy measures over the last few years, central banks also have a major responsibility to ensure international financial stability. A loss of confidence in their ability to effectively counter the strengthening inflationary trend and thus perform their main task of safeguarding monetary stability could therefore have adverse consequences for the stability of both the financial markets and the banking system.

Other risk factors include unfavourable trends in the regulatory or legal environment and a further tightening of the competitive situation in Germany. Along with inflation-related cost increases, a fall in margins to levels that are unattractive from a risk-return perspective could also delay and/or limit the effectiveness of the expected positive effects of the measures to increase Commerzbank's profitability over the coming years.

In Poland, there is still no immediate prospect of a final supreme court ruling on the legal situation concerning lawsuits brought by private customers relating to Swiss franc real estate loans, meaning that further significant charges cannot be ruled out.

For further information on other risks, see the Group risk report on page 101 ff.

Group risk report

The Group risk report is a separate reporting section in the Annual Report. It forms part of the Group management report.

Group risk report

› In the Group risk report, we give a comprehensive presentation of the risks we are exposed to. We provide a detailed insight into the organisation and key processes of our risk management. Our primary aim is to ensure that all risks in Commerzbank are fully identified, monitored and managed based on adequate procedures at all times.

Contents

Executive summary 2021

The 2021 financial year, like the previous year, was marked by the coronavirus pandemic. However, our sound portfolio quality and the measures taken by governments mean that the effects have so far had only a limited impact on the risk ratios. The top-level adjustment (TLA) recognised for the expected coronavirus effects remains available to cover the direct and indirect effects of the pandemic.

Risk-bearing capacity ratio stood at 176% as at 31 December 2021

- The risk-bearing capacity ratio remains well above the minimum requirement.
- The reduction in the economically required capital compared with December 2020 is attributable in particular to lower credit and market risk.

The Group's exposure at default increased

- The Group's exposure at default increased from €466bn to €470bn in 2021.
- The risk density declined from 21 basis points to 18 basis points over the same period.

Risk result for the Group amounted to €–570m in 2021

- There was a considerable drop in the risk result compared to the previous year because lower loan losses were recorded for 2021 than had originally been expected and no further significant additions to the TLA had to be made.
- For 2022 the Bank expects charges of less than €700m for the risk result.

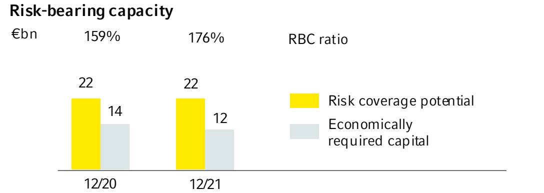
Market risk in the trading book declined in 2021

- The value at risk (VaR) declined from €12m to €7m over the course of 2021.
- The reason for this was that extreme scenarios relating to the coronavirus from March of the previous year no longer had an influence on the time series for the VaR calculation.

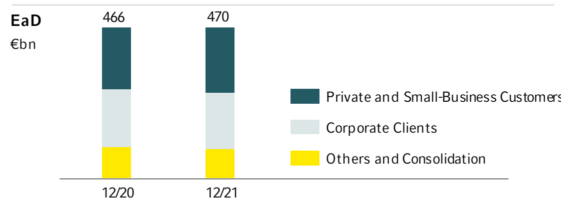
Operational risks increased year on year

- In 2021 risk-weighted assets from operational risks increased from €18.3bn to €19.8bn. This rise was mainly due to the switch from the advanced measurement approach (AMA) to the standardised approach.
- The total charge for OpRisk events increased from €345m to €1,136m compared with the previous year.

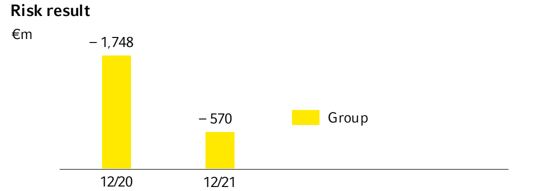
Risk-bearing capacity



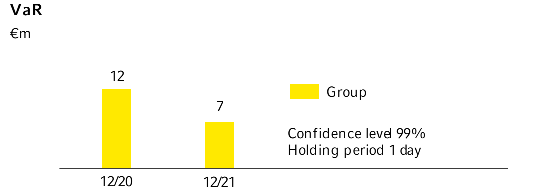
EaD



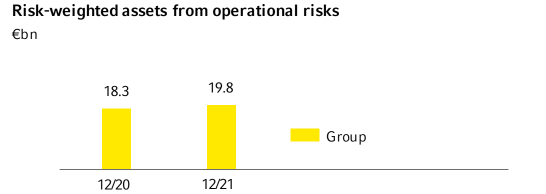
Risk result



VaR



Risk-weighted assets from operational risks



Risk-oriented overall bank management

Commerzbank defines risk as the danger of possible losses or profits foregone due to internal or external factors. In risk management, we normally distinguish between quantifiable and non-quantifiable types of risk. Quantifiable risks are those to which a value can normally be attached in financial statements or in regulatory capital requirements, while non-quantifiable risks include compliance and reputational risk.

Risk management organisation

Commerzbank regards risk management as a task for the whole Bank. The Chief Risk Officer (CRO) is responsible for developing and implementing the Group's risk policy guidelines for quantifiable risks, laid down by the Board of Managing Directors, as well as for measuring these risks. The CRO regularly reports to the Board of Managing Directors and the Supervisory Board's Risk Committee on the overall risk situation within the Group.

Until 31 December 2020, the risk management organisation consisted of the following divisions: Group Credit Risk Management, Group Credit, Group Market Risk Management, Group Risk Controlling & Capital Management and Group Cyber Risk & Information Security.

As of 1 January 2021, Commerzbank combined the divisions Group Market Risk Management and Group Risk Controlling & Capital Management to form the new Group Risk Control division. Furthermore, the Group Big Data & Advanced Analytics division was integrated into the risk management organisation.

In addition, the CRO has assumed responsibility for Group Compliance. It is Group Compliance's responsibility to establish appropriate governance, procedures and systems to allow the Bank to avoid unintentional endangerment as a consequence of compliance risks. Group Compliance is led by the Chief Compliance Officer.

All divisions have a direct reporting line to the CRO.

The Board of Managing Directors has exclusive responsibility for fundamental strategic decisions. The Board of Managing Directors has delegated operative risk management to committees. Under the relevant rules of procedure, these are: the Group Credit Committee, the Group Market Risk Committee, the Group OpRisk Committee, the Group Cyber Risk & Information Security Committee and the Group Strategic Risk Committee, which decides on risk issues of an overarching nature. The CRO chairs all these committees and has the right of veto. The CRO is also a member of the central Asset Liability Committee. Here the CRO also has a right of veto on certain topics (e.g. liquidity risk issues).

The tasks and competencies of the respective committees are described below:

The **Supervisory Board's Risk Committee** is the Bank's highest risk committee. It comprises at least five Supervisory Board members. The Risk Committee's tasks include monitoring the risk management system and dealing with risks such as market, credit and operational risk, reputational risk and cyber risks (including information security at the Bank). The Risk Committee determines the type, scope, format and frequency of the information that must be presented to the Board of Managing Directors about strategy and risk.

The **Group Credit Committee** is the decision-making committee for operative credit risk management, comprising two representatives each from the back office and front office. The Group Credit Committee operates on the basis of the credit risk strategy. It takes decisions in line with the competencies delegated to it by the Board of Managing Directors.

The **Group Market Risk Committee** monitors market risk throughout the Group and manages limit requirements in line with risk-bearing capacity. To do this, all market risks from the trading and banking book are analysed to identify risks early and for active risk management purposes. The focus here is on optimising the risk/return profile.

The **Group OpRisk Committee** (OpRiskCo) is responsible for managing operational risks within the Group and in this regard acts as the highest escalation and decision-making committee below the Board of Managing Directors. The OpRiskCo also addresses all important regulatory issues that arise in connection with the management of operational risks within the Group. In addition, it deals with standards on governance and assessing the functioning of the Internal Control System (ICS) within the Commerzbank Group. Details about the ICS can be found in the section on operational risks.

The **Cyber Risk & Information Security Committee** (CRISCo) monitors and manages cyber and information security risks in the overall interests of the Bank. In this respect, it acts as the highest decision-making and escalation committee below the Board of Managing Directors. The CRISCo addresses all regulatory aspects relevant to cyber and information security issues and ensures appropriate risk management in this regard in accordance with internationally recognised standards.

The **Group Strategic Risk Committee** acts as the discussion and decision-making committee for all types of risk, and its main objective is to monitor and manage risks at portfolio level. This covers risk measurement, risk transparency and risk management.

The **Group Asset Liability Committee** (Group ALCO) is the Commerzbank Group committee responsible for the Group-wide and integrated management of financial resources, namely capital, liquidity and balance sheet structure as well as net interest income, in accordance with the regulatory framework. The Group ALCO monitors in particular the Group's risk-bearing capacity and as such plays an important part in the Internal Capital Adequacy Assessment Process (ICAAP). The Group ALCO resolves the recovery plan. Resolutions of the Group ALCO are presented to the Board of Managing Directors for confirmation. In case of violation of a recovery plan indicator, the Group ALCO plays a central role regarding the escalation, the estimation of the situation and the introduction of measures.

Moreover, risk issues are dealt with in other committees listed below:

The **Group Risk Management Executive Committee** acts as the discussion and decision-making committee within Group Risk Management and is responsible in particular for the organisation and strategic development of risk management as well as the creation and maintenance of a uniform risk culture. It also ensures that the Group risk strategy and the resolutions of the Board of Managing Directors are implemented in the risk function.

Compliance topics are dealt with in the **Global Compliance Board** (GCB). The GCB has been established as a forum to share updates on major compliance topics and supervisory actions regarding compliance in the Bank. Furthermore, the GCB serves as information platform for segments and functions about compliance culture, changes in compliance regulations, updates of compliance-related policies and their implications.

Risk strategy and risk management

The overall risk strategy, in line with the business strategy, governs the strategic risk focus of the Commerzbank Group. It sets the risk appetite as the maximum risk that the Bank is prepared and able to accept while following its business objectives without exposing itself to existential threats over and above the risks inherent in the business. The guiding idea is to ensure that the Group holds sufficient liquidity and capital. That also includes ensuring that the business strategy can be implemented through a risk profile that is commensurate with the leeway in the Group's capitalisation as determined by regulatory and capital market factors. Based on these requirements, suitable limits are defined for the risk resources of capital and liquidity available to the Group. The overarching limits of the overall risk strategy are consistent with the indicator thresholds of the recovery plan.

The core functions of banks as transformers of liquidity and risk give rise to inevitable threats that can in extreme cases endanger the continued existence of the institution. These depend on the bank's particular business model and are accepted in the pursuit of business objectives. The basis for Commerzbank's strategic alignment is its business strategy. In the event of a sustained change in the assessment of the inherent and existential threats to Commerzbank, the Board of Managing Directors may have to adjust the business model and thus the business and risk strategy in the medium and long term. A distinction can be made between the types of risk accepted on the basis of two fundamental threat scenarios. The occurrence of an inherent, existential threat jeopardises the continued existence of Commerzbank. In this case, rescuing Commerzbank would hardly be feasible without state measures or significant regulatory support measures (e.g. protective guarantees, tolerance of significant deviations from regulatory capital requirements, rescue merger) or activation of the Single Resolution Mechanism (SRM).

However, mitigation strategies are developed to counter these inherent existential threats, in order as far as possible to reduce the probability of damage or the extent thereof. On the other hand, if a threat materialises that is inherent in the business model but not existential, there is always the possibility of mitigation through, among other things, capital measures available on the market or the use of appropriate capital buffers. It is therefore not necessary to activate the Single Resolution Mechanism (SRM) in this threat scenario. For Commerzbank, the existential threats inherent in its business model include, for example, the default of Germany, the disintegration of the eurozone and a sovereign default of one or more of the other major European countries or a default of the United States, a collapse of the financial markets in connection with loss of the basic functionalities of the ECB, or a bank run, a collapse or a massive malfunction in global clearing houses, as well as extreme cyber attacks on states and institutions due to increasing digitalisation and geopolitical tensions.

The (non-existential) threats inherent in the business model include a deep recession lasting several years with severe effects on the German economy (e.g. triggered by a global pandemic or originating in the USA or China) and the resulting consequences such as huge loan defaults or a sharp outflow of customer deposits affecting the liquidity situation. The global economic downturn caused as a result of the outbreak of the coronavirus pandemic increased overall uncertainty. Commerzbank quickly adapted to the new pandemic scenario and adjusted the management of market, liquidity, credit and operational risks in line with the specific requirements of the pandemic. The observable effects of the pandemic on value chains and commodity prices show, however, that the effects are also still ongoing and remain difficult to assess. Increasing geopolitical tensions, including between Western countries and Russia or China, could lead to significant negative effects on economic performance. The potential for conflict, which is difficult to gauge and goes far beyond trade disputes, remains a relevant risk for Commerzbank as a bank heavily involved in financing global trade.

Climate change may pose another inherent threat. Climate change may be reflected in physical and transition risks for Commerzbank. The transitional aspects in particular harbour risks (as well as opportunities) that are difficult to assess in the short term. Identifying and mitigating this threat to Commerzbank is one of the objectives of risk strategy. Accordingly, Commerzbank has determined for each type of risk whether environmental risks are a key driver. All risk types that are material in relation to environmental risks have been adequately reflected in the risk strategy and risk management.

When pursuing its business targets, the Bank accepts these threats inherent in its business model. It may be necessary to adjust the business model and hence the business and risk strategies in the medium and long term if the Board of Managing Directors' assessment of these threats to Commerzbank changes substantially. To the extent that it is able to do so, Commerzbank makes early preparations in anticipation of forthcoming changes in regulatory requirements and accounting standards. Such changes and their (retrospective) interpretation may have lasting implications for – and even threaten the survival of – Commerzbank's business model. Commerzbank accepts these regulatory risks because there are many cases where there is no option to mitigate or manage them.

The overall risk strategy covers all material risks to which Commerzbank is exposed. It is updated annually or on an ad hoc basis as required and set out in further detail in the form of sub-risk strategies for the risk types which are material. These are then specified and made operational through policies, regulations and instructions/guidelines. By means of the upstream risk inventory process, Commerzbank ensures that all risk types of relevance to the Group are identified and their materiality assessed. The assessment of the materiality of a risk is based on whether its occurrence could have a major direct or indirect impact on the Bank's risk-bearing capacity.

As part of the planning process, the Board of Managing Directors decides how much of the risk coverage potential of the Group should be utilised. On that basis, individual types of quantifiable risk contributing to the capital requirements are limited in a second stage. A capital framework is allocated to the management-relevant units through the planning process. Compliance with limits and guidelines is monitored during the year, and management measures are put in place where required. In addition, further qualitative and quantitative early warning indicators are established in the overall risk strategy. Potential negative developments can be identified at an early stage with the help of these indicators.

One of the primary tasks of risk management is the avoidance of risk concentrations. These can arise from the synchronous movement of risk positions both within a single risk type (intra-risk concentrations) and across different risk types (inter-risk concentrations). The latter result from common risk drivers or from interactions between different risk drivers of different risk types.

By establishing adequate risk management and controlling processes, Commerzbank provides for the identification, assessment, management, monitoring and communication of material risks and related risk concentrations. This ensures that all Commerzbank-specific risk concentrations are taken into account in its risk management. Scenario analyses are regularly used to ensure transparency regarding risk concentrations. The structure of the scenarios and the integrated approach ensure that the impact of adverse scenarios on portfolio priorities and risk concentrations are examined in a targeted manner. Management is regularly informed about the results of the analyses so that the potential risk of losses can be avoided in good time.

The Group Risk & Capital Monitor is the monthly risk report, designed for management purposes, on capital, credit risk, market risk, liquidity risk and OpRisk topics within Commerzbank risk management. It shows all the above risk types, including economic and regulatory risk-bearing capacity, for the Commerzbank Group. The report's aims include providing the Board of Managing Directors and the Supervisory Board's Risk Committee with transparent and comprehensive information, highlighting important developments from a risk perspective and setting management measures. The report is also used in particular to monitor limits and guidelines within the overall risk strategy. Responsibility for approving the overall risk strategy and the Group Risk & Capital Monitor lies with the Board of Managing Directors.

Commerzbank has adopted a code of conduct that defines binding minimum standards for Commerzbank's corporate responsibility, its dealings with customers, business partners and colleagues, and its day-to-day business. It goes without saying that the Bank complies with relevant laws, regulatory requirements, industry standards and internal rules, and this therefore forms a particularly important part of its risk culture. It actively requires employees to behave appropriately, courageously, with integrity and in compliance with rules, and any failure to comply with rules is penalised. Expanded procedures ensure that misconduct is evaluated in a uniform and fair manner, strengthening consequence management on a long-term basis.

The main pillar of the Bank's overall risk management and culture is the concept of three lines of defence, which is a core element of the Corporate Charter. Under the three-lines-of-defence principle, protecting against undesirable risks is an activity that is not restricted to the risk function. Each unit (segment or function) forms the first line of defence within its area of operational responsibility and is directly responsible for identifying and managing risks within it while complying with the prescribed risk standards and policies. For example, the front office forms the first line of defence in all business decisions and has to take risk aspects into account in reaching them. The second line of defence for each type of risk lays down standards for appropriate management of risks of that type, monitors this and ensures the application of such standards, and analyses and evaluates the risks. The risk function forms the second line of defence against credit and market risks associated with business decisions. Particularly for credit risk, this includes involvement in the credit decision process by means of a second vote. Units outside the risk function (e.g. Group Finance) also operate as the second line of defence for certain risk types. The third line of defence is Internal Audit.

Risk ratios

Commerzbank uses a comprehensive system of ratios and procedures for measuring, managing and limiting various types of risk. The most important of these are listed below:

Economically required capital is the amount, corresponding to a high confidence level (currently 99.90% at Commerzbank), that will cover unexpected losses arising from risk positions.

The **risk-bearing capacity ratio (RBC ratio)** indicates the excess coverage of the economically required capital by the risk coverage potential. Risk-bearing capacity is deemed to be assured as long as the RBC ratio is higher than 100%.

Exposure at default (EaD) is the expected exposure amount taking into account a potential (partial) drawing of open lines and contingent liabilities that will adversely affect risk-bearing capacity in the event of default. EaD is hereinafter also referred to as "exposure".

Expected loss (EL) measures the potential loss on a loan portfolio that can be expected within one year on the basis of historical loss data.

Risk density is the ratio of expected loss to exposure at default and thus represents the relative risk content of an exposure or a portfolio.

Value at risk (VaR) is a methodology for quantifying risk. It involves setting a holding period (such as one day) and a confidence level (such as 97.5%). The VaR value then denotes the relevant loss threshold that will not be exceeded within the holding period with a probability in line with the confidence level.

Credit value at risk (CVaR) is the economic capital requirement for credit risk with a confidence level of 99.90%. The term results from the application of the value at risk concept to credit risk measurement. Credit VaR is an estimate of the amount by which losses from credit risks could potentially exceed the expected loss within a single year, i.e. unexpected loss. The idea behind this approach is that expected loss simply represents the long-term average of lending losses, but this may vary (positively or negatively) from actual credit losses for the current financial year.

In relation to bulk risk, the **"all-in"** concept comprises all customer credit lines approved by the Bank in their full amount – irrespective of the loan utilisation to date. It is independent of statistically modelled parameters to the greatest possible extent and comprises internal as well as external credit lines.

Risk-bearing capacity and stress testing

Risk-bearing capacity analysis is a key part of overall bank management and Commerzbank's ICAAP. The purpose is to ensure that sufficient capital is held at all times. The risk-bearing capacity concept is reviewed and optimised annually.

When determining the economically required capital, allowance is made for potential unexpected fluctuations in value. Where such fluctuations exceed forecasts, they must be covered by the available economic capital to absorb unexpected losses (risk coverage potential). Only the economic value of equity components that absorb losses in the going concern approach is taken into account in determining the economic risk coverage potential.

The capital requirement for the risks taken is quantified using the internal economic capital model. All risk types of the Commerzbank Group classified as significant and quantifiable within the annual risk inventory are taken into account when determining the economically required capital. The economic risk approach therefore also comprises risk types that are not included in the regulatory requirements for banks' capital adequacy. The model also reflects diversification effects incorporating all types of risk. The confidence level for the calculation of economically required capital is 99.90% and is harmonised with the going concern approach. The quantifiable significant risks in the economic capital model are divided into default risk, market risk, operational risk and (not separately disclosed in the table on the next page) business risk and property value change risk. Furthermore, reserve risk is included in the risk-bearing capacity calculation by means of a corresponding risk buffer. Business risk is the risk of a potential loss resulting from deviations in actual income and expense from the respective budgeted figures. Business risk is used to substantiate a higher-level management buffer that ensures the responsiveness of capital management. Physical asset risk is the risk of an unexpected fall in the value of owned property which is either already recognised as an asset in the Group's balance sheet or which can be recognised during the next 12 months under contractually assured obligations with option character (especially real estate). Climate and environmental risks are defined as horizontal risks within Commerzbank and arise in existing risk categories, with both transition and physical risks being considered. The annual materiality assessment of climate and environmental risks, carried out for the first time in 2021, provides a holistic overview of the impact on existing material risk types identified in the risk inventory. Climate and environmental risks are appropriately reflected in Commerzbank's risk-bearing capacity analysis. Among other things, a risk buffer was implemented as at 31 December 2021 for default and market risks that are materially influenced by climate and environmental risks. Further information on climate and environmental risks can be found in the "Environmental, social and governance (ESG) risks" section on page 140 f.

The results of the risk-bearing capacity analysis are shown using the risk-bearing capacity ratio (RBC ratio), indicating the excess of the risk coverage potential in relation to the economically required capital. Risk-bearing capacity is monitored and managed monthly at Group level. Risk-bearing capacity is deemed to be assured as long as the RBC ratio is higher than 100%. In 2021, the RBC ratio was consistently above 100% and stood at 176% as at 31 December 2021. The reduction in the economically required capital compared with December 2020 is attributable in particular to lower credit and market risk. The decline in credit risk is attributable primarily to improvements in average customer credit ratings, which are reflected both in the expected loss and in the capital requirement. The decline in market risk results in particular from the fact that the coronavirus crisis figures from March 2020 are no longer included in the calculation on which the capital requirement is based, and from improved risk diversification. The RBC ratio is still well above the minimum requirement.

Risk-bearing capacity Group | €bn	31.12.2021	31.12.2020
Economic risk coverage potential	**22**	**22**
Economically required capital[1]	**12**	**14**
thereof for default risk	9	10
thereof for market risk[2]	3	4
thereof for operational risk	1	1
thereof diversification effects	−2	−2
RBC ratio (%)[3]	**176**	**159**

[1] Including physical asset risk, risk of unlisted investments and the risk buffer for reserve risk, for the quantification of potential fluctuations in value of intangibles and, from December 2021, additionally for climate and environmental risks.
[2] Including deposit model risk.
[3] RBC ratio = economic risk coverage potential/economically required capital (including risk buffer).

Commerzbank uses macroeconomic stress tests to review the risk-bearing capacity in the event of assumed adverse changes in the economic environment. The underlying scenarios take into account the interdependence of the development of the real economy and the financial economy. They are updated quarterly and approved by the Group ALCO. The scenarios describe an extraordinary but plausible adverse development in the economy, focusing in particular on portfolio priorities (e.g. export-based sectors in Germany) and business strategies of relevance to Commerzbank. Current adverse developments (e.g. the coronavirus pandemic) are also taken into account when creating the scenarios. Stress tests in the economic perspective cover a time horizon of 12 months. The scenario simulation is run quarterly at Group level using the input parameters of the economic capital requirements calculation for all material and quantifiable risk types. In addition to the capital required, the income statement is also subjected to a stress test based on the macroeconomic scenarios. Based on this, changes in the risk coverage potential are simulated. Whereas the RBC ratio is embedded into Commerzbank's limit system, guidelines for risk-bearing capacity are set as an early warning system in the stressed environment. The ongoing monitoring of the limits and guidelines is a key part of internal reporting. Defined escalations are triggered if the limits are breached.

The risk-bearing capacity and stress testing concept is subject to an annual internal review and is refined on an ongoing basis. The development of the regulatory environment is also taken into account. In addition to the regular stress tests, reverse stress tests are implemented annually at Group level. Unlike regular stress testing, the result of the simulation – a sustained threat to the Bank – is determined in advance. The aim of the analysis process in the reverse stress test is to improve the transparency of Bank-specific risk potential and interactions of risk by identifying and assessing extreme scenarios and events. On this basis, for instance, action fields in risk management including the regular stress tests can be identified and taken into account in the ongoing development efforts. In 2021, an internal holistic climate risk stress test was carried out by the Bank for the first time in preparation for the ECB climate risk stress test which is to be conducted in 2022. Both transition and physical risk factors relating to default, market, operational and reputational risks were analysed on the basis of scenarios.

In 2021, the risk-weighted assets resulting from Commerzbank's business activities decreased from €179bn to €175bn.

The table below gives an overview of the distribution of risk-weighted assets, broken down by segment and risk type:

	31.12.2021				31.12.2020			
Risk-weighted assets €bn	**Default risk**	**Market risk**	**Operatio-nal risk**	**Total**	**Default risk**	**Market risk**	**Operatio-nal risk**	**Total**
Private and Small-Business Customers	42	1	10	53	40	1	6	47
Corporate Clients	70	6	5	81	74	7	7	89
Others and Consolidation	33	3	5	41	34	4	5	43
Group	**145**	**10**	**20**	**175**	**148**	**12**	**18**	**179**

[1] Adjustment due to restatements.

The coronavirus pandemic continued to have a huge impact on the global economy in 2021. While the incidence of infection decreased significantly in spring 2021 in many countries and the coronavirus-related restrictions were noticeably relaxed, new waves of infection began to build up in autumn, which recently gained considerable momentum with the emergence of the Omicron variant. Against this background, the coronavirus-related rules in many countries were drastically tightened again.

The coronavirus pandemic will continue to have a significant impact on the global economy in 2022. The currently high number of new coronavirus infections will likely only decrease sustainably in spring 2022, as was the case in the past year.

Inflation has risen sharply all over the world, and the rapid pace of this inflation is pushing more and more central banks towards abandoning their expansive monetary policy. The performance of the financial markets in 2022 will depend as rarely before on inflation and how it is perceived.

Further information on the effects of the coronavirus pandemic and the inflation risks can be found in the economic report and in the outlook and opportunities report in the Group management report.

The escalation of the Russia-Ukraine conflict represents a significant risk for the economic outlook. If Russia were to curb or even completely stop energy exports, it would at least short-term lead to energy shortages in Western Europe. Restrictions on production, especially in energy-intensive sectors, would hardly be avoided. At the same time, energy prices would continue to rise, significantly reducing the purchasing power of households. In this case, at least in Germany, a recession would be hard to avoid.

So the war in Ukraine affects both our business with Ukraine and our business with Russia. Commerzbank's net exposure in Russia amounts to €1.3bn. On top of this exposure, the Bank has around €0.6bn Russia related exposure which consists mostly of pre-export financing of commodities. The net exposure in Ukraine is less than €0.1bn. We assume that sanctions relating to individual business partners (for example, the exclusion of large Russian financial institutions from the SWIFT banking communications network or the prohibition of US dollar clearing with large Russian banks) or entire industries (for example, the energy or raw materials sector) will also have an impact on Commerzbank. In addition, we expect Russian countersanctions to have an impact on Commerzbank's portfolios. We closely monitor further developments and continuously adapt our risk assessment and business policy. Commerzbank strictly follows the sanctions at all times.

Regulatory environment

With Basel 3, the Basel Committee on Banking Supervision published among other things comprehensive rules on the components of equity and equity ratios as well as the management of liquidity risk. The associated Capital Requirements Directive and Regulation, constituting the European implementation of Basel 3, have been in force since 1 January 2014, with the more stringent capital requirements having been phased in up to 2019. Numerous supplementary regulations have since been published, in particular by the European Banking Authority (EBA), and these are now progressively entering into force; this will continue in the years to come. The phasing in of capital buffers is a significant feature of the Basel 3 revision, which has now been completed. In accordance with the legal requirements, the buffers are subject to planned, regular supervisory review.

Commerzbank has analysed the effects of the increase in the countercyclical capital buffer in Germany, which will take effect from February 2023, and other currently foreseeable changes in the countercyclical capital buffer, as well as the possible introduction of a sectoral systemic risk buffer on loans secured by residential real estate, and reflects them in its internal capital planning.

Further information on the countercyclical capital buffer can be found in the outlook and opportunities report in the Group management report.

In addition, under Basel 3 the leverage ratio has been introduced as a new and non-risk-sensitive debt ratio. Commerzbank has set internal targets for managing the leverage ratio and capital adequacy requirement. These are subject to ongoing review and consideration as part of the capital management process.

Liquidity risk is to be monitored by means of the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). The LCR entered into force on 1 October 2015 and is binding on all European banks. The final version of the NSFR, which was approved by the Basel Committee in October 2014, was transposed into European law as part of the Capital Requirements Regulation II (CRR II) and has been binding since June 2021. Commerzbank is already calculating both ratios as part of its regulatory reporting processes, communicating them in its internal reporting and reporting them to the supervisory authority.

The CRR II was published together with the Capital Requirements Directive (CRD V) as part of the Risk Reduction Package in the Official Journal of the European Union on 7 June 2019. As a European directive, CRD V requires transposition into national law within 18 months. The legislation implements, among other things, the Basel Committee's requirements on the leverage ratio, the net stable funding ratio, regulations on the trading book and large exposures, and the treatment of investment funds. In addition, numerous specifications have yet to be made by the EBA.

The CRR relief enacted by the EU in 2020 in the wake of the coronavirus pandemic ("CRR Quick Fix"), such as the early relief for risk positions with small and medium-sized enterprises, was implemented accordingly by Commerzbank.

The ECB, in its capacity as the supervisory authority for the eurozone banks directly supervised by it, conducted the annual Supervisory Review and Evaluation Process (SREP). On 3 February 2022, in its final SREP decision for 2021, the ECB informed Commerzbank of the results of the SREP and the associated supervisory requirements. It did not change the bank-specific capital requirements for the Commerzbank Group set for 2022. With effect from 1 March 2022 the SREP decision replaces the previous SREP decision of 10 December 2019.

A key aim of the ECB project is to harmonise RWA-relevant models for market, counterparty and credit risk that fall within the scope of the Single Supervisory Mechanism (SSM). In particular, the scope for interpretation permitted by the regulations or arising due to differences in national application is to be significantly reduced in future. Some future regulations have been anticipated and far-reaching independent interpretations have been made through the relevant Guides as part of an SSM-wide Targeted Review of Internal Models (TRIM) programme. Commerzbank has received the final ECB decisions with the results of the review.

The EU Bank Recovery and Resolution Directive has been in force since mid-2014. Responsibility for the drafting of resolution plans and the resolution of at-risk banks supervised by the ECB was transferred to the Single Resolution Board (SRB) in Brussels with effect from 1 January 2016. At the same time, eurozone banks started to fund the Single Resolution Fund. The SRB defines the formal minimum requirement for own funds and eligible liabilities (MREL) for the banks under its responsibility on a consolidated and individual basis.

The legal basis for setting MREL and TLAC was revised at European level and published on 7 June 2019 as part of the Risk Reduction Package in the form of the Single Resolution Mechanism Regulation (SRMR II), the Bank Recovery and Resolution Directive II (BRRD II) and the CRR II. The BRRD II as a European directive requires implementation into national law within 18 months. The amendments included, among other things, adjustments to the calculation logic and, for certain banks, a statutory subordination requirement for parts of MREL. Most of the new provisions came into force in December 2020.

The Group-wide recovery plan was updated in October 2021 to reflect the regulatory requirements. The recovery plan describes in detail for instance the courses of action and recovery potential available to the Bank in the event of a crisis and which specific recovery measures, in various stress scenarios, will enable the Bank to complete its recovery.

Commerzbank operates in markets subject to national and supranational regulation. In addition, it is subject to the overarching requirements imposed by accounting standards. Changes in regulatory requirements and accounting standards have significantly grown in frequency and materiality in recent years. They may have lasting implications for the financial industry in general and Commerzbank's business model in particular. Commerzbank continues to participate actively and at an early stage in the consultation processes aimed at preparing for the constant changes in the operating environment. It also monitors and evaluates current developments as regards future regulatory projects. Specific examples of these at global level are the final standards for revising capital requirements for market risk now published by the Basel Committee on Banking Supervision, and the revision of the framework for operational risk and credit risk, including the associated floor rules and disclosure requirements ("Basel 4"). At the European level, Commerzbank is following, among other things, the implementation of Basel 4, initiatives by the European Commission to introduce a European deposit insurance scheme and to create a capital markets union, the European Green Deal and the EBA initiative to revise the internal risk models.

The regulatory environment also remains challenging with regard to compliance risks. The focus here remains on the issues of anti-money laundering (including the implementation of the new BaFin administrative practice and the requirements of international standard-setters such as the EBA) and sanctions. In addition, anti-bribery and corruption (including the United Kingdom Bribery Act and the United States Foreign Corrupt Practices Act) and market compliance (among other things new EU requirements in sustainable finance, US requirements and CFTC regulations) are putting further risk types into the regulatory focus.

Default risk

Default risk is defined as the risk of losses sustained or profits foregone due to the default of a counterparty. It is a quantifiable material risk and includes the sub-risk types of credit default risk, issuer risk, counterparty risk, country and transfer risk, dilution risk and reserve risk.

Strategy and organisation

The credit risk strategy is the sub-risk strategy for default risks and is derived from the overall risk strategy. It is embedded in the ICAAP process of the Commerzbank Group and forms a link between the Bank's overall risk management across all risk types and the operationalisation of default risk management. The overriding aim is to ensure the adequate quality of the credit portfolio. To this end, the credit risk strategy defines the credit risk tolerance, specifies risk strategy priorities, provides an overview of the material credit risk management concepts and thereby plays an integral part in maintaining the Group's risk-bearing capacity. The credit risk strategy makes use of quantitative and qualitative management tools that give decision-makers clear guidance on both portfolio management and decisions in specific cases. Within the context of the requirements of the EBA guidelines on loan origination and monitoring (LOaM) implemented in 2021, sustainability aspects were defined and anchored, and expanded out-of-policy reporting was put in place.

Credit risk management is a joint task of the front office and the risk function, based on a standardised Group-wide credit risk culture. Impeccable moral and ethical conduct in compliance with the law and regulations is a key element of a culture of integrity and core to the credit risk culture. Default risks are assessed against uniform standards, regardless of segment limits. In line with the three lines of defence principle, the front office is the first line of defence and must take risk aspects into account when taking business decisions. The risk function (back office and Risk Controlling) is the second line of defence, its fundamental task being to manage, limit and monitor risks. The third line of defence is Internal Audit. It is tasked with independently auditing the Bank's processes and safeguards, and as such also assesses the activities of the first and second lines of defence.

The Group Credit Committee is the highest decision-making committee for operative credit risk management, comprising two representatives each from the back office and front office. It takes decisions in line with the competencies delegated to it by the Board of Managing Directors and is responsible for managing all credit risks. In so doing, the Group Credit Committee operates on the basis of the valid credit risk strategy. Reporting to the Group Credit Committee are sub-credit committees, which operate on the basis of their respective rules of procedure and within the competencies approved by the Board of Managing Directors. They comprise at least two representatives from the segments and two representatives from Group Risk Management. The sub-credit committees are responsible for managing all credit risks in the sub-portfolios within their respective remit and are entitled, in turn, to sub-delegate certain credit decisions within their prescribed competencies.

Discrete back-office areas are responsible for operational credit risk management at portfolio level and on a case-by-case basis. The responsibilities are separated between the performing loan area on the one hand and Intensive Care on the other. All credit decisions in the performing loan area are risk/return decisions. The front and back office take joint responsibility for risk and return from an exposure, with the front office having primary responsibility for the return, and the back office for the risk. Accordingly, neither office can be overruled in its primary responsibility in the credit decision process.

Higher-risk customers are handled by specialist Intensive Care areas. The customers are moved to these areas as soon as they meet defined criteria for assignment or mandatory transfer. The principal reasons for assignment to Intensive Care areas are criteria relating to number of days overdrawn, together with event-related criteria such as rating, third-party enforcement measures or credit fraud. The Intensive Care function decides on further action based on the circumstances of individual cases. Customers must be transferred to Intensive Care if they are in default (for example due to insolvency). This graduated approach ensures that higher-risk customers can continue to be managed promptly by specialists in a manner appropriate to the risks involved and in defined standardised processes.

Risk management

Commerzbank manages default risk using a comprehensive risk management system. The management framework comprises an organisational structure, methods and models, quantitative and qualitative management tools and regulations and processes. The risk management system ensures that the entire portfolio and the sub-portfolios, right down to individual exposure level, are managed consistently and thoroughly on a top-down basis.

The ratios and measures required for the operational process of risk management are based on the overarching Group objectives. The principle of maintaining a low-risk profile in all business decisions is closely combined here with the risk function's aim of providing the front office with appropriate support. Preference is given to transactions and products with a low level of complexity. Another focus is on the responsiveness of a credit line or exposure.

Quantitative credit risk strategy guidelines limit risks with regard to poorer credit ratings and exposures with high loss-at-default contributions (concentration management) and for selected sub-portfolios with a high risk weight or regulatory importance, and, as applicable, for individual products with a high portfolio share. Detailed arrangements for operationalising the guidelines for selected sub-portfolios are set out in separate portfolio policies. In addition, qualitative management guidelines in the form of credit policies define the target business of the Bank. At the level of individual transactions, they regulate the transaction type for which the available risk resources are to be used. These credit policies are firmly embedded in the credit process: transactions which do not meet the requirements are escalated through a fixed competence regulation.

Group-wide guiding principles are based on risk-oriented analyses of trends (e.g. of the development of weaker credit ratings over time) combined with an assessment of external framework conditions and internal rules. Risk-oriented analyses on key dates (e.g. rating profile of individual asset classes) are used in particular to derive portfolio guiding principles. Trend analyses of product-specific risk drivers are key factors for determining product guiding principles (e.g. loan-to-value of mortgage lending). In contrast, credit and portfolio policies are primarily produced through a multi-level coordination process involving the product and portfolio managers from the front and back offices, combined with an assessment of internal and external information sources.

To monitor compliance with credit risk strategic rules, continuous monitoring and reporting has also been set up at whole Group level and at segment or sub-portfolio level. Asset quality reviews by the risk function make an important contribution here to quality assurance and early risk detection. The focal points of the monitoring vary depending on the issue and target group. Ad hoc reporting processes have been established. In addition, crisis events may pose a risk to the Bank's capital and liquidity adequacy and thereby to its risk-bearing capacity. In a crisis, the Risk Mitigation Task Force will manage decisions flexibly in a coordinated, Group-wide process. For example, in the context of the ongoing pandemic the Task Force Corona (TFC) was established at the beginning of 2020 in order to identify effects on the Group portfolio as quickly as possible and to be able to take counter-measures. The TFC continued its work in 2021. As part of the process, emergency action plans ensure that risk-mitigation measures are implemented quickly and efficiently.

The avoidance of risk concentrations is a core strategy of risk management. Risk concentrations are actively managed in order to identify at an early stage and contain the increased potential for loss from the synchronous movement of risk positions. In addition to exposure-related credit risk concentrations (bulk risks), default risk also includes country and sector concentrations. Segment-specific features are taken into account here.

Management and the Supervisory Board's Risk Committee are regularly informed about the results of the analyses.

Overview of management instruments and levels

	Risk strategies and policies	Limit and guideline systems	Portfolio monitoring and reporting	Structures of organisation and committees
Group	Overall risk strategy plus sub-risk strategies for significant risk types Establishment of a general risk understanding and creation of a uniform risk culture	Definition of Group limits (across all risk types) for capital and liquidity management Additional definition of guidelines as key points of the aspired target portfolio	Group Risk & Capital Monitor plus risk type specific Group formats (including flash reporting) Uniform, consolidated data repository as basis for Group reporting	Ensuring exchange of information and networking in committees that operate across all risk types Retaining qualified staff in line with progressive product innovation or regulatory adjustments
Sub-portfolios	Clear formulation of risk policy in guidelines (portfolios, asset classes, etc.) Differenciated credit authorities based on compliance of transactions with the Bank's risk policy	Performance metrics on level of risk categories and sub-portfolios Expansion of Group-wide performance metrics using sub-portfolio-specific indicators	Portfolio batches as per established portfolio calendar* Asset quality review and analysis of High Attention Parts (HAP) Trigger monitoring with clear escalation and reporting lines	Interdisciplinary composition of segment committees Ensuring uniform economic opinions
Individual exposures	Rating-dependent and bulk-sensitive credit authority regulations with clear escalation processes	Limitation of bulk risk and uniform management according to model-independent all-in definition	Limit monitoring at individual exposure level Monthly report to the Board of Managing Directors on the development of bulk risks Review of individual customers/exposures resulting from asset quality review or HAP analyses	Deal team structures Institutionalized exchange within the risk function, also taking account of economic developments Sector-wise organization of domestic corporate business

The Task Force Corona established in 2020 as part of crisis management under the direction of the Chief Credit Risk Officer continued its work in 2021. The Board of Managing Directors was regularly informed about the results and decisions of the cross-unit meetings to ensure a coordinated vote on the effects of the crisis. These internal meetings were discontinued in February 2021, but are to be revived if necessary. The existing ad hoc reports were continued on a monthly basis. The established exchange formats with the supervisory authorities continue to take place at regular intervals. There are still bi-weekly meetings between the Joint Supervisory Team (JST) and the CFO/CRO and quarterly JST meetings with senior management. Workshops were also held with regulators to clarify specific issues.

Management of economic capital commitment

Economic capital commitment is managed in order to ensure that the Commerzbank Group holds sufficient capital. To this end, all relevant risk types in the overall risk strategy for economic risk capital are given limits on a Group-wide basis, with, in particular, a CVaR limit being specified. Due to the systematically restricted options for reducing default risk on a short-term basis, it is important to take account of expected trends (medium-term and long-term) in order to manage credit risk. For this reason, forecast values of credit risk parameters play a key role in ongoing management. At segment and business area level, changes to forecasts are monitored and adjustments made when necessary. There is no cascaded capital limit concept for credit risk below Group level.

Rating classification

The Commerzbank rating method comprises 25 rating classes for customers not in default (1.0 to 5.8) and 5 default classes (6.1 to 6.5). The Commerzbank master scale allocates precisely one rating class, stable over time, to each probability of default. The rating methods are validated annually and recalibrated where necessary so that they reflect the latest assessment based on all actual observed defaults. However, this is possible and expedient amid a pandemic only to a limited extent, which is why the associated negative developments will become apparent only with a time lag.

The probability of default ranges assigned to the ratings are the same for all portfolios. This ensures internal comparability consistent with the master scale method. For guidance and indicative purposes, the Commerzbank master scale also shows external ratings as well as credit quality steps in accordance with Article 136 CRR. However, a direct reconciliation is not possible, because external ratings of different portfolios show fluctuating default rates from year to year.

The credit approval authorities of both individual staff and the committees (Board of Managing Directors, Credit Committee, sub-credit committees) are graduated by a range of factors including size of exposure and rating class.

Commerzbank master scale

Commerzbank AG rating	PD and EL mid-point %	PD and EL range %	S&P scale		Credit quality steps in accordance with Article 136 CRR[1]	
1.0	0	0	AAA	AAA	I	Investment Grade
1.2	0.01	0 – 0.02				
1.4	0.02	0.02 – 0.03	AA+	AA		
1.6	0.04	0.03 – 0.05	AA, AA–			
1.8	0.07	0.05 – 0.08	A+, A	A	II	
2.0	0.11	0.08 – 0.13	A–			
2.2	0.17	0.13 – 0.21	BBB+	BBB	III	
2.4	0.26	0.21 – 0.31	BBB			
2.6	0.39	0.31 – 0.47				
2.8	0.57	0.47 – 0.68	BBB–			
3.0	0.81	0.68 – 0.96	BB+	BB	IV	Sub-investment grade
3.2	1.14	0.96 – 1.34	BB			
3.4	1.56	1.34 – 1.81				
3.6	2.10	1.81 – 2.40	BB–			
3.8	2.74	2.40 – 3.10				
4.0	3.50	3.10 – 3.90	B+	B	V	Non-investment grade
4.2	4.35	3.90 – 4.86	B			
4.4	5.42	4.86 – 6.04				
4.6	6.74	6.04 – 7.52				
4.8	8.39	7.52 – 9.35	B–			
5.0	10.43	9.35 – 11.64				
5.2	12.98	11.64 – 14.48	CCC+	CCC	VI	
5.4	16.15	14.48 – 18.01	CCC, CCC–			
5.6	20.09	18.01 – 22.41	CC, C	CC, C		
5.8	47.34	22.41 – 99.99				
6.1	100	> 90 days past due	D		Default	
6.2		Imminent insolvency				
6.3		Restructuring with recapitalisation				
6.4		Termination without insolvency				
6.5		Insolvency				

[1] CRR = Capital Requirements Regulation (EU) No 575/2013.

Risk mitigation

The collateral taken into account in risk management changed in the period under review from €121.2bn to €123.3bn for positions in the Group's performing portfolio and from €1.2bn to €1.1bn for positions in the default portfolio.

Commerzbank mitigates credit risk through various measures including collateral and netting procedures.

Types of collateral include in particular land charges, financial collateral, guarantees, indemnities, credit derivatives, life insurance policies, other registered liens and other physical collateral.

There have been no visible effects of the coronavirus pandemic on the market values of typical loan collateral (especially real estate) to date; with the exception of aircraft, no further portfolio-based haircuts have been factored in.

The Bank takes account of credit risk mitigation effects from the acceptance of recognisable warranties (guarantees, comparable claims on third parties) by using the guarantor's risk parameters (PD and LGD) and/or, in the case of the CRSA, the regulatory risk weightings.

As at the reporting date, no loan loss provisions were created for transactions with a total volume of €5.9bn (31 December 2020: €6.0bn), as these are entirely collateralised.

Where eligible from a regulatory point of view, guarantors are subject to a creditworthiness check and rating assignment based on their sector and business as part of the assessment of their declaration of liability. The aim of the creditworthiness check is to establish the guarantor's creditworthiness and maximum solvency.

The quality of the collateralisation recognised for regulatory purposes is rigorously checked and monitored on an ongoing basis. This includes in particular checks on legal enforceability and regular measurement of the collateral, carried out at appropriate intervals depending on the type of collateral, at least annually or on an event-driven basis. Positive correlations between the debtor's creditworthiness and the value of the collateral or guarantee are defined in the credit and collateral processing process; collateral instruments affected are not counted. Collateral is processed and evaluated primarily outside the front office.

The Bank analyses all credit collateral (physical and personal collateral) for evidence of collateral concentrations. The analysis includes checks on various dimensions such as collateral categories, the borrower's rating classes or regional allocations of collateral. The Board of Managing Directors receives regular information in respect of the above dimensions about changes in the collateral pool and possible issues/concentrations.

The measurement and processing of collateral is governed by generally applicable standards and collateral-specific instructions (guidelines, process descriptions, IT instructions). Collateral agreements are legally reviewed; standard agreements and templates are used where possible. The standards drawn up to hedge or mitigate the risk of loans, which also take into account the regulatory requirements of the CRR, include, among other things:

- Legal and operational standards for documentation and data collection and measurement standards.
- Standards to ensure the uniformity and timeliness of collateral measurement through the definition of measurement processes, uniform measurement methods, parameters and defined collateral discounts, clear definition of competences and responsibility for the processing and measurement process, and regular remeasurement frequencies.
- Other standards to take account of specific risks such as operational risk, correlation and concentration risk, market price change risk (e.g. due to currency fluctuations), country risk, legal and legal change risk and the risk of inadequate insurance coverage.

Commerzbank Group

Commerzbank focuses its business on two customer segments, Private and Small-Business Customers (PSBC) and Corporate Clients (CC).

The coronavirus pandemic continued to have a huge impact on the global economy in 2021. While the incidence of infection decreased significantly in spring 2021 in many countries and the coronavirus-related restrictions were noticeably relaxed, new waves of infection began to build up in autumn, which recently gained considerable momentum with the emergence of the Omicron variant. Against this background, the coronavirus-related rules in many countries were drastically tightened again.

The coronavirus pandemic will continue to have a significant impact on the global economy in 2022. The currently high number of new coronavirus infections will likely only decrease sustainably in spring 2022, as was the case in the past year.

The direct and indirect consequences of the coronavirus pandemic are covered in particular by means of a top-level adjustment (TLA) in the risk result as well as adjustments of models. The TLA figure recorded in the 2020 financial statements was checked during the year on the quarterly reporting dates and recalculated if necessary. The majority of these effects are not yet perceptible in the remaining risk figures, as they will only become noticeable here with a time lag.

Credit risk parameters

The credit risk parameters in the Commerzbank Group are distributed in the rating classes 1.0 to 5.8 over the segments as follows:

	31.12.2021				31.12.2020			
Credit risk parameters	Exposure at default €bn	Expected loss €m	Risk density bp	CVaR €m	Exposure at default €bn	Expected loss €m	Risk density bp	CVaR €m
Private and Small-Business Customers	203	408	20	2,180	190	401	21	2,025
Corporate Clients	174	347	20	4,197	180	430	24	4,647
Others and Consolidation	93	114	12	2,141	96	141	15	2,721
Group	**470**	**869**	**18**	**8,518**	**466**	**971**	**21**	**9,393**

When broken down on the basis of PD ratings, 85% of the Group's portfolio is in the internal rating classes 1 and 2, which comprise investment grade.

	31.12.2021					31.12.2020				
Rating breakdown EaD | %	1.0-1.8	2.0-2.8	3.0-3.8	4.0-4.8	5.0-5.8	1.0-1.8	2.0-2.8	3.0-3.8	4.0-4.8	5.0-5.8
Private and Small-Business Customers	30	55	12	2	1	32	52	13	3	1
Corporate Clients	18	62	15	3	2	20	59	16	4	2
Others and Consolidation	49	47	3	0	0	56	41	3	0	0
Group	**29**	**56**	**11**	**2**	**1**	**32**	**53**	**12**	**2**	**1**

The Group's country risk assessment covers both transfer risks and event risks driven by political and economic events which impact on the individual economic entities of a country. Country risks are managed on the basis of transfer risk limits defined at country level. Country exposures which are significant for Commerzbank due to their size are handled by the Credit Committee on a separate basis.

The regional breakdown of the exposure corresponds to the Bank's strategic direction and reflects the main areas of its global business activities.

	31.12.2021			31.12.2020		
Group portfolio by region	Exposure at default €bn	Expected loss €m	Risk density bp	Exposure at default €bn	Expected loss €m	Risk density bp
Germany	257	363	14	248	415	17
Western Europe	96	198	21	102	238	23
Central and Eastern Europe	55	222	40	51	207	41
North America	37	35	9	33	46	14
Asia	15	23	16	24	34	15
Other	11	28	27	10	31	31
Group	**470**	**869**	**18**	**466**	**971**	**21**

More than half of the Bank's exposure relates to Germany, another third to other countries in Europe, 8% to North America and 3% to Asia. The rest is broadly diversified and is split among a large number of countries where we serve German exporters in particular or where Commerzbank has a local presence. The expected loss of the Group portfolio is mainly divided between Germany and the other European countries.

Risk result

The risk result relating to the Group's lending business in 2021 amounted to €–570m (prior-year period: €–1,748m).

The following table shows the breakdown of the risk result by stage according to IFRS 9. In Note 32 of the Group financial statements (Credit risks and credit losses) details regarding the stages can be found; in Note 11 (Risk result) the definition of the risk result can be found.

Any fluctuations in the market values of fair value loans are not recognised in the risk result. They are recognised in the net income from financial assets and liabilities measured at fair value through profit or loss.

	31.12.2021				31.12.2020			
Risk result | €m	**Stage 1**	**Stage 2[1]**	**Stage 3[1]**	**Total**	**Stage 1**	**Stage 2[1]**	**Stage 3[1]**	**Total**
Private and Small-Business Customers	–23	–1	–295	–319	–9	–183	–369	–562
Corporate Clients	8	18	–175	–149	–35	–355	–690	–1,081
Others and Consolidation	6	–35	–72	–101	–6	5	–106	–106
Group	**–9**	**–18**	**–542**	**–570**	**–50**	**–533**	**–1,165**	**–1,748**

[1] Including allocated risk result from POCI (POCI – purchased or originated credit-impaired).

There was a considerable drop in the risk result compared to the previous year because lower loan losses were recorded for 2021 than had originally been expected and no further significant additions to the TLA had to be made. The model-based parameters used to determine risk provisions do not yet fully reflect the effects of the coronavirus pandemic. As in 2020, a pandemic-related top-level adjustment was therefore required for the risk result.

The TLA figure of €–505m booked as at 31 December 2020 was checked during the year on the quarterly reporting dates and recalculated if necessary. At the end of 2021 the TLA figure was completely recalculated based on an updated macroeconomic scenario, parameter adjustments derived from it and current portfolio data. This led to an increase in the TLA in the current calendar year by €–17m. The TLA as at 31 December 2021 thus amounted to €–523m. The assumptions regarding increased probabilities of default compared with the model result were updated to take account of developments as at the reporting date. The TLA takes into account the expected effects of the coronavirus pandemic on the Commerzbank Group by the end of 2022. This is based on a macroeconomic scenario that reflects the uncertainty that increased in the fourth quarter of 2021 owing to the fourth coronavirus wave and the occurrence of new mutations, including the resulting measures and restrictions on public life, which will have a negative impact on economic performance in 2022. In addition, economic performance in 2022 is threatened by indirect and secondary effects from the pandemic, such as interruptions to production chains, scarcity of raw materials and rising energy prices in the eurozone. The adequacy of the TLA is continually reviewed. (Details on the background to and adjustment of the TLA can also be found in Note 32 of the Group financial statements (Credit risks and credit losses)).

Further drivers of the risk result in the reporting period are addressed in the following explanatory notes on the segments.

For 2022 the Bank expects charges of less than €700m for the risk result.

Default portfolio

The Group's default portfolio decreased by €640m in 2021 and stood at €4,156m as at the end of the year. The decline in 2021 was attributable in the main to larger write-downs on individual exposures in the Corporate Clients segment, as well as in Others and Consolidation amid otherwise low inflows into the default portfolio.

The following breakdown of the default portfolio shows the claims in the default portfolio in the amortised cost and fair value OCI (other comprehensive income) categories. The loans are almost exclusively assigned to the amortised cost category, of which by far the greatest share of €3.9bn (31 December 2020: €4.6bn) relates to the loans and receivables class, and €244m (31 December 2020: €211m) to off-balance-sheet transactions. As at 31 December 2021 the volume of defaulted securities that can be assigned to the debt securities class was €3m (31 December 2020: €3m fair value OCI category). The collateral shown is liable to the full extent for loans in the amortised cost category, with €1,087m (31 December 2020: €1,137m) relating to loans and receivables and €27m (31 December 2020: €31m) to off-balance-sheet transactions.

As at 31 December 2021 there was no default volume to be reported for credit transactions in the fair value OCI category (31 December 2020: €4m).

	31.12.2021			31.12.2020		
Default portfolio Group | €m	**Loans**	**Securities**	**Total**	**Loans**	**Securities**	**Total**
Default portfolio	4,152	3	4,156	4,792	3	4,795
LLP[1]	2,055	0	2,055	2,272	0	2,272
Coverage ratio excluding collateral (%)[2]	49	–	49	47	–	47
Collateral	1,109	0	1,109	1,168	0	1,168
Coverage ratio including collateral (%)[2]	76	–	76	72	–	72
NPE ratio (%)[3]			0.9			1.0

[1] Loan loss provisions.
[2] Coverage ratio: LLP (and collateral) as a proportion of the default portfolio.
[3] NPE ratio: default portfolio (non-performing exposures – NPE) as a proportion of total exposures (EaD including NPE) according to EBA Risk Dashboard.

Commerzbank uses the definition in Article 178 CRR as the criterion for default. The EBA guidelines on the application of the definition of default referred to in Article 178 of Regulation (EU) No 575/2013 are taken into account. The default portfolio is divided into the following five classes based on the nature of the default:

- Rating class 6.1: Over 90 days past due.
- Rating classes 6.2/6.3: Unlikely-to-pay, or the Bank is assisting in financial rescue or distressed restructuring at the customer by making concessions.
- Rating classes 6.4/6.5: The Bank recalls the loan and the customer has become insolvent respectively.

The table below shows the breakdown of the default portfolio based on the five rating classes:

	31.12.2021				31.12.2020			
Group rating classification | €m	**6.1**	**6.2/6.3**	**6.4/6.5**	**Total**	**6.1**	**6.2/6.3**	**6.4/6.5**	**Total**
Default portfolio	668	1,722	1,766	4,156	759	1,924	2,112	4,795
LLP	274	690	1,090	2,055	350	691	1,231	2,272
Collateral	287	441	382	1,109	333	416	419	1,168
Coverage ratio including collateral (%)	84	66	83	76	90	58	78	72

Overdrafts in the performing loan book

In order to avoid an increase in the default portfolio, overdrafts are closely monitored at Commerzbank. In addition to the 90 days-past-due trigger event, IT-based management of overdrafts starts on the first day the account is overdrawn. The table below shows overdrafts outside the default portfolio based on the exposure at default as at the end of December 2021. The changes may also be due to short-term overdrafts:

	31.12.2021					31.12.2020				
EaD €m	**> 0 ≤ 30 days**	**> 30 ≤ 60 days**	**> 60 ≤ 90 days**	**> 90 days**	**Total**	**> 0 ≤ 30 days**	**> 30 ≤ 60 days**	**> 60 ≤ 90 days**	**> 90 days**	**Total**
Private and Small-Business Customers	568	80	38	0	686	834	82	27	11	954
Corporate Clients	1,553	62	0	0	1,615	1,823	19	19	42	1,903
Group[1]	**2,121**	**142**	**38**	**0**	**2,301**	**2,657**	**101**	**46**	**53**	**2,857**

[1] Including Others and Consolidation.

Private and Small-Business Customers segment

The Private and Small-Business Customers (PSBC) segment includes activities with private and small-business customers, in private banking and in wealth management, and with customers of the Group divisions comdirect and Commerz Real. mBank is also shown in the Private and Small-Business Customers segment.

The focus of the portfolio is on traditional owner-occupied home financing and the financing of real estate capital investments (residential mortgage loans and investment properties with a total EaD of €102bn). We provide our small-business customers with credit mainly in the form of individual loans with a volume of €27bn. In addition, we meet our customers' day-to-day demand for credit with consumer loans (overdrafts, instalment loans and credit cards, to a total of €15bn). The portfolio's expansion in recent months was largely due to residential mortgage loans.

Compared with the previous year, the risk density of the portfolio improved slightly to 20 basis points (December 2020: 21 basis points). An increased risk due to the coronavirus pandemic is not yet visible in the portfolio, but the uncertainty about further developments remains.

	31.12.2021			31.12.2020		
Credit risk parameters	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Private Customers	83	108	13	114	149	13
Small-Business Customers	35	54	15	34	60	18
comdirect	2	5	24	2	8	44
Commerz Real	0	0	10	0	0	16
Private Banking	11	9	8	–	–	–
Wealth Management	26	25	10	–	–	–
mBank	45	207	46	41	184	45
PSBC	**203**	**408**	**20**	**190**	**401**	**21**

[1] As at 1 July 2021 the structure of the sub-portfolios was changed.

The risk result in the Private and Small-Business Customers segment was €–319m in the 2021 financial year (previous year: €–562m). The reduction was largely due to the lower impact of the coronavirus pandemic. The effects of the coronavirus crisis have not yet materialised to a large extent for the Small-Business Customers portfolio owing to support measures and a pandemic-related TLA was therefore still required for 2021. The updated TLA as at December 2021 remained almost unchanged for the portfolio and amounted to €–126m as at 31 December 2021 (31 December 2020: €–130m); the amount is almost entirely attributable to the Small-Business Customers portfolio. In addition, an amount of €–60m from the regular reassessment of the IFRS 9 parameters was added to the risk result in the fourth quarter of 2021, of which €–42m was attributable to the non-significant default portfolio.

At €–187m, risk provisioning for possible loan losses at mBank was also well below the previous year's figure of €–274m, which was due to the significantly reduced impact relating to the coronavirus pandemic compared to the previous year. The risk result of mBank resulted in part from allocations for individual cases. mBank's result also includes a reversal of loan loss provisions totalling €14m resulting from the regular reassessment of the IFRS 9 parameters.

The default portfolio in the segment declined and stood at €1,846m as at the reporting date (31 December 2020: €2,041m). The decline compared with the end of 2020 was primarily due to the low level of new defaults at both Commerzbank and mBank in 2021.

	31.12.2021			31.12.2020		
Default portfolio PSBC | €m	**Loans**	**Securities**	**Total**	**Loans**	**Securities**	**Total**
Default portfolio	1,846	0	1,846	2,041	0	2,041
LLP	826	0	826	969	0	969
Coverage ratio excluding collateral (%)	45	–	45	47	–	47
Collateral	717	0	717	727	0	727
Coverage ratio including collateral (%)	84	–	84	83	–	83

Corporate Clients segment

The Corporate Clients segment (CC) comprises the Group's activities with mid-size corporate clients, the public sector, institutional customers and multinational corporates. The segment is also responsible for the Group's relationships with banks and financial institutions in Germany and abroad, as well as with central banks. The regional focus of our activities is on Germany and Western Europe. The Group's customer-oriented capital markets activities are also bundled in this segment.

The EaD of the Corporate Clients segment decreased from €180bn to €174bn compared with 31 December of the previous year. Risk density decreased from 24 basis points to 20 basis points.

For details of developments in the Financial Institutions portfolio, please see page 124.

	31.12.2021			31.12.2020		
Credit risk parameters	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Mittelstand	77	158	20	80	189	24
International Corporates	60	120	20	64	155	24
Financial Institutions	21	47	23	20	57	28
Other	16	23	14	16	29	18
CC	**174**	**347**	**20**	**180**	**430**	**24**

The risk result for the Corporate Clients segment in the 2021 financial year was €–149m (previous year: €–1,081m). The charge for the segment was considerably reduced compared with the previous year owing to the lower impact of the coronavirus pandemic. The proportion of the TLA attributable to the segment was €–392m as at 31 December 2021, with an allocation of €–18m recognised in profit or loss being made in 2021. The need for the TLA adjustment resulted from the assumptions for sectors/sub-portfolios, which were checked and in part adjusted on the basis of the macroeconomic scenario, for which direct and/or indirect effects are to be expected. Tourism/hotels and retail, which are predominantly affected by primary effects, are relevant examples here. Another example is the automotive industry, where secondary effects in particular, such as interruptions to supply chains and production cutbacks due to a lack of raw materials (e.g. semi-conductors), are having a negative impact. Resulting rating migrations and defaults are expected for 2022, which are currently not yet reflected in the model-based calculation of loan loss provisions and are therefore covered by the TLA.

The risk result for the segment also includes an addition of €–21m for the fourth quarter, which results from the regular reassessment of the IFRS 9 parameters, of which €–17m relates to the non-significant default portfolio.

The default portfolio in the segment stood at €2,096m as at the end of 2021 (31 December 2020: €2,334m). The change in 2021 was mainly attributable to the write-down of a relatively large individual exposure and repayments, which continued to overcompensate for the currently low inflows to the default portfolio from new defaults.

	31.12.2021			31.12.2020		
Default portfolio CC | €m	**Loans**	**Securities**	**Total**	**Loans**	**Securities**	**Total**
Default portfolio	2,092	3	2,096	2,331	3	2,334
LLP	1,076	0	1,076	1,106	0	1,106
Coverage ratio excluding collateral (%)	51	–	51	47	–	47
Collateral	387	0	387	402	0	402
Coverage ratio including collateral (%)	70	–	70	65	–	65

The risk result in the Others and Consolidation segment was €–101m in the 2021 financial year (previous year: €–106m) and was thus at a similar level. Drivers for risk provisions in 2021 were the negative performance of an existing exposure, which required an increase in the existing risk provision, and an increase in the risk provision in the non-defaulted portfolio in the amount of €–19m due to the regular review of the IFRS 9 parameters. The regular review of the IFRS 9 parameters did not result in any need for adjustments in the non-significant default portfolio of the segment. The TLA for the segment was €–5m, of which €–3m was added in 2021 with an effect on income.

Further portfolio analyses

The analyses below are independent of the existing segment allocation. The positions shown are already contained in full in the Group and segment presentations above.

Corporates portfolio by sector

Overall, the different sectors of German industry continue to be affected to varying degrees by the coronavirus pandemic as well as by unrelated, fundamental structural challenges. In the first half of 2021, the negative impact of the crisis decreased. An improved performance since the beginning of the pandemic was particularly noticeable in the manufacturing, construction, automotive and logistics sectors.

The tourism segment suffered significantly from the strict infection control measures in the first half of 2021. With the easing of the restrictions, partial recovery effects were observed, albeit well below the pre-crisis level. While the tourism industry is optimistic about 2022, the risks from new virus variants (e.g. Omicron) remain a latent risk that still needs to be closely observed.

In addition to the course of the coronavirus pandemic, the maintenance of the supply chains and the availability of intermediate products (e.g. semiconductors) as well as increased raw material prices will have a significant impact on the business performance of many companies. In the second half of 2021 in particular, an increase in risks was observed in some sectors (e.g. automotive suppliers). It is to be expected that the increased raw material prices and the limited availability of intermediate products will continue in 2022. The pandemic and possible other virus variants will continue to influence the risk profile.

A breakdown of the corporates exposure by sector is shown below.

	31.12.2021			31.12.2020		
Corporates portfolio by sector	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Energy supply/Waste management	22	51	23	22	73	33
Consumption	16	38	24	15	51	34
Technology/Electrical industry	15	27	18	14	35	25
Wholesale	13	37	27	12	43	35
Transport/Tourism	13	46	37	12	56	45
Basic materials/Metals	10	25	24	10	28	27
Services/Media	10	28	28	10	34	34
Automotive	10	30	30	10	39	41
Chemicals/Plastics	8	26	31	9	23	26
Mechanical engineering	7	19	25	8	31	37
Pharma/Healthcare	6	25	42	5	22	41
Construction	5	12	22	6	17	31
Other	5	3	6	6	7	11
Total	**141**	**367**	**26**	**141**	**460**	**33**

Financial Institutions portfolio

Our network of correspondent banks continued to focus on trade finance activities on behalf of our corporate customers and on capital market activities. In derivatives, we enter into trades with selected counterparties under the European Market Infrastructure Regulation (EMIR) standards.

We continue to keep a close watch on the impact of regulatory requirements on banks. In this context, we continue to pursue our strategy of holding as few exposures as possible which might absorb losses in the event of a bail-in of an affected institution.

We are keeping a close eye on developments in various countries affected by specific issues such as recessions, embargoes and economic uncertainty caused by political events (e.g. trade wars) and are responding with flexible portfolio management that is tailored to the individual situation of each country. This applies in particular to the upheavals resulting from the coronavirus pandemic and energy price developments, which are having a major impact on the operating environment of our correspondent banks in both industrialised and developing countries. Overall, our risk appetite is geared to keeping the portfolio as responsive as possible.

	31.12.2021			31.12.2020		
FI portfolio by region	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Germany	5	4	9	6	7	11
Western Europe	15	10	7	16	13	8
Central and Eastern Europe	2	9	44	2	12	60
North America	2	1	2	3	1	2
Asia	5	15	28	7	22	32
Other	6	18	31	5	18	37
Total	**35**	**56**	**16**	**39**	**72**	**18**

Non-Bank Financial Institutions portfolio

The Non-Bank Financial Institutions (NBFI) portfolio mainly comprises insurance companies, asset managers, regulated funds and central counterparties. Business activities are focused on Germany, Western Europe, the United States and Asia.

Commerzbank conducts new business with NBFIs partly in consideration of regulatory requirements (clearing via central counterparties) and partly in the interests of our institutional customers, with a focus on attractive opportunities with customers with good credit ratings and valuable security. We manage our portfolios with the aim of ensuring their high quality and responsiveness. We are keeping a close eye on risks stemming from global events and are responding with flexible portfolio management that is tailored to the individual situation. The effects of the coronavirus pandemic on the operating environment of

NBFI customers have further diminished, so that we currently do not expect any deterioration in creditworthiness.

	31.12.2021			31.12.2020		
NBFI portfolio by region	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Germany	18	18	10	17	18	10
Western Europe	13	18	14	12	23	19
Central and Eastern Europe	2	14	75	2	12	53
North America	9	5	6	9	11	11
Asia	1	1	11	2	2	12
Other	1	3	39	1	4	55
Total	**44**	**60**	**14**	**44**	**71**	**16**

Originator positions

Commerzbank has in recent years securitised receivables from loans to the Bank's customers with a current volume of €11.5bn for capital management purposes (31 December 2020: €12.3bn).

As at the reporting date 31 December 2021, risk exposures with a value of €9.8bn were retained (31 December 2020: €10.2bn). By far the largest share of all positions was accounted for by €9.6bn (31 December 2020: €10.0bn) on senior tranches, which are almost entirely rated good to very good. Commerzbank did not issue any new transactions in 2021. In 2020, two transactions with a total issue volume of €7.9bn were issued. We do not see any impacts from the coronavirus pandemic on risk positions in the reporting period.

		Commerzbank volume[1]			
Securitisation pool €bn	**Maturity**	**Senior**	**Mezzanine**	**First loss piece**	**Total volume[1]**
Corporates	2025 - 2036	9.6	< 0.1	0.2	11.5
Total 31.12.2021		**9.6**	**< 0.1**	**0.2**	**11.5**
Total 31.12.2020		10.0	< 0.1	0.2	12.3

[1] Tranches/retentions (nominal): banking and trading book.

Conduit exposure and other asset-backed exposures

The Bank provides financing to securitise receivables, in particular trade and leasing receivables, from customers in the Corporate Clients segment. In this context, Commerzbank acts mainly as an arranger of asset-backed securities transactions via the Commerzbank-sponsored multi-seller conduit Silver Tower. The volume and risk values for the securitisation of receivables in the Corporate Clients segment rose by €0.3bn to €3.9bn in 2021.

Liquidity risk subsumes the risk that Commerzbank will be unable to meet its payment obligations on a day-to-day basis. Liquidity risks from securitisations are modelled in the internal liquidity risk model on a risk-adjusted basis. In the case of transactions subject to variable utilisation, it is assumed that the purchase facilities provided to the special-purpose companies must be refinanced almost in full by Commerzbank for the duration of their term and until the maturity of the last financed receivable. Securitisations only qualify as liquid assets if they are eligible for rediscount at the European Central Bank. These positions are only included in the liquidity risk calculation after risk-adjusted discounts are applied.

The other asset-backed exposures mainly comprise govern-ment-guaranteed asset-backed securities (ABS) held by Commerzbank Finance & Covered Bond S.A. and Commerzbank AG in Germany. In 2021 the volume declined to €3.9bn (December 2020: €4.4bn), as did the risk values[1] at €3.9bn (December 2020: €4.4bn).

[1] Risk value is the balance sheet value of cash instruments. For long CDS positions, it comprises the nominal value of the reference instrument less the net present value of the credit derivative.

There are also investments in the Structured Credit area. The volume of new investments entered into since 2014 stood at €6.9bn (December 2020: €5.9bn). We have invested in bonds of senior tranches of securitisation transactions in the consumer (auto) ABS, UK RMBS and CLO asset classes, which have a robust structure and a moderate risk profile. At 31 December 2021, this portfolio solely contained AAA-rated CLO positions (also the case at the end of 2020). Remaining structured credit positions with a volume of €0.2bn were already in the portfolio prior to 2014 (December 2020: €0.3bn), while risk values stood at €0.2bn (December 2020: €0.2bn).

Forbearance portfolio

The EBA's definition of forbearance comprises two requirements, which have to be met concurrently: the debtor is in financial difficulties and the measures of the bank to help the debtor include concessions to the debtor that the bank would not have agreed to under different circumstances. Examples of concessions include deferrals, increases in limits or loans and waivers in connection with restructuring. The definition of forbearance applies independently of whether the debtor is in the performing or the non-performing portfolio.

The following tables show Commerzbank's total forbearance portfolio on the basis of the EBA definition as well as the loan loss provisions for these positions:

	31.12.2021			31.12.2020		
Forbearance portfolio by segment	**Forborne exposure** €m	**LLP** €m	**LLP coverage ratio** %	**Forborne exposure** €m	**LLP** €m	**LLP coverage ratio** %
Private and Small-Business Customers	920	140	15	1,091	201	18
Corporate Clients	2,240	413	18	2,215	377	17
Others and Consolidation	207	142	69	298	156	53
Group	**3,367**	**695**	**21**	**3,604**	**735**	**20**

The forbearance portfolio by region is as follows:

	31.12.2021			31.12.2020		
Forbearance portfolio by region	**Forborne exposure** €m	**LLP** €m	**LLP coverage ratio** %	**Forborne exposure** €m	**LLP** €m	**LLP coverage ratio** %
Germany	1,744	390	22	1,912	376	20
Western Europe	858	183	21	745	48	6
Central and Eastern Europe	472	112	24	866	301	35
North America	8	1	7	2	0	1
Asia	220	1	1	3	2	47
Other	65	8	13	76	9	12
Group	**3,367**	**695**	**21**	**3,604**	**735**	**20**

In April 2020, the EBA established a relief regime in relation to public and private payment moratoria in the context of the coronavirus pandemic. These payment moratoria do not trigger the classification as forbearance or distressed restructuring if the measures taken are based on applicable national law or on an industry-wide private initiative agreed and widely applied by the credit institutions involved.

Commerzbank also granted its customers corresponding moratoria in the second and third quarters of 2020 with terms of three to six months. The vast majority of borrowers resumed payment of their instalments on time after the end of the deferral period.

The decline in forbearance exposure of around 7% in 2021 stems primarily from German Private and Small-Business Customers. The LLP coverage ratio at Group level increased slightly to 21%.

In addition to the LLP of €695m (31 December 2020: €735m), the risks in the forbearance portfolio are covered by collateral totalling €1,179m (31 December 2020: €1,032m).

Market risk

Market risk is the risk of potential financial losses due to changes in market prices (interest rates, commodities, credit spreads, exchange rates and equity prices) or in parameters that affect prices such as volatilities and correlations. Losses may impact profit or loss directly, e.g. in the case of trading book positions. However, for banking book positions they are reflected generally in the revaluation reserve or in hidden liabilities/reserves.

Strategy and organisation

Commerzbank's market risk strategy is derived from its overall risk strategy and the business strategies of the individual segments. It sets targets for market risk management in relation to Commerzbank's main business activities. The core market risk management tasks are the identification of all material market risks and drivers of market risk and the independent measurement and evaluation of these. The results and estimates serve as the basis for risk/return-oriented management.

The Board of Managing Directors of Commerzbank is responsible for ensuring the effective management of market risk throughout the Commerzbank Group. Specific levels of authority and responsibility in relation to market risk management have been assigned to the appropriate market risk committee.

In the Group Market Risk Committee, segment representatives, along with representatives from the risk function and finance area, discuss current risk positioning issues and decide on appropriate action. Chaired by the risk function, the Group Market Risk Committee, which meets monthly, deals with the Commerzbank Group's market risk position. Discussions centre on the monthly market risk report, which is also presented to the Board of Managing Directors for their consideration. The report summarises the latest developments on financial markets, the Bank's positioning and related risk ratios.

The risk management process involves the identification, measurement, management and monitoring of risks and reporting on them. It is the responsibility in functional terms of market risk management, which is independent of trading activities. Central market risk management is complemented by decentralised market risk management units at segment level and for regional units and subsidiaries. The close integration of central and local risk management with the business units means that the risk management process starts in the trading areas themselves. The trading units are responsible in particular for the active management of market risk positions, e.g. reduction measures or hedging.

Risk management

Commerzbank uses a wide range of quantitative and qualitative tools to manage and monitor market risk. Quantitative limits for sensitivities, value at risk, stress tests, scenario analyses and ratios on economic capital limit the market risk. Our comprehensive rulebook, in the form of market risk policies and guidelines as well as restrictions on portfolio structure, new products, maturities and minimum ratings, establishes the qualitative framework for market risk management. The market risk strategy lays down the weighting of figures in each segment by reference to their relevance. Thereby allowance is made for the varying impact of the parameters for the management of the segments in line with the business strategy.

Market risk is managed internally at Group level, segment level and in each segment's reporting units. A comprehensive internal limit system broken down to portfolio level is implemented and forms a core part of internal market risk management.

The quantitative and qualitative factors limiting market risk are determined by the market risk committees by reference to the Group's management of economic capital. The utilisation of these limits, together with the relevant net income figures, is reported daily to the Board of Managing Directors and the responsible heads of the Group divisions. Based on qualitative analyses and quantitative ratios, the market risk function identifies potential future risks, anticipates potential financial losses in collaboration with the finance function, and draws up proposals for further action, which are discussed with the front office units. Voting on the proposed measures or risk positions takes place in the above-mentioned market risk committee and is subsequently submitted to the Board of Managing Directors for approval.

Risk concentrations are restricted directly using specific limits or are indirectly avoided, for example, using stress test limits. In addition, the combination of various conventional risk measures (e.g. VaR, sensitivities) ensures the appropriate management of concentration risks. Furthermore, risk drivers are analysed on a regular basis in order to identify concentrations. The risk management of existing concentrations is also reviewed using situation-driven analyses and, where necessary, supplemented by targeted measures such as limits.

Any limits that are breached are handled in a separate escalation procedure. After a limit breach has been identified, the front office and risk units design adequate countermeasures. If the limit breach cannot be remedied within a reasonable period, it will be escalated by the market risk function to the next hierarchical level.

Regulatory risk measures that are not included in economic risk-bearing capacity are limited and managed separately. These include, for example, stressed VaR and incremental risk charge.

In internal management, all positions relevant to market risk are covered, and trading and banking book positions are jointly managed. In addition, for regulatory purposes the trading book is managed separately (in accordance with regulatory requirements, including currency and commodity risks in the banking book) and interest rate risks in the banking book are managed on a stand-alone basis. In order to provide a consistent presentation in this report, all figures relating to VaR are based on a confidence level of 99%, a holding period of one day, equally weighted market data and a 254-day history.

Trading book

Below, we show how the regulatory market risk ratios of the trading book portfolio developed. Most of Commerzbank's trading book positions derive from the Corporate Clients segment and Group Treasury division. The VaR figures comprise all risks in the internal VaR model. Commerzbank subsidiaries use standardised approaches for their regulatory capital calculation under partial use rules.

The VaR declined from €12m to €7m in 2021. The reason for this was that extreme scenarios relating to the coronavirus from March of the previous year no longer had an influence on the time series for the VaR calculation.

VaR of portfolios in the trading book | €m	**2021**	**2020**
Minimum	3	5
Mean	7	13
Maximum	20	31
VaR at end of reporting period	**7**	**12**

The market risk profile is diversified across all asset classes.

VaR contribution by risk type in the trading book | €m	**31.12.2021**	**31.12.2020**
Credit spreads	1	2
Interest rates	2	4
Equities	0	0
FX	2	4
Commodities	2	3
Total	**7**	**12**

Further risk ratios are calculated for regulatory capital adequacy. This includes the calculation of stressed VaR. Stressed VaR is calculated using the internal model on the basis of the VaR method described above. The main difference lies in the market data used to value the assets. Stressed VaR measures the risk in the present position in the trading book by reference to market movements from a specified crisis period in the past. The crisis observation period used for this is checked regularly through model validation and approval processes and adjusted where necessary. The crisis observation period remained the same during the year.

The market risk profile in stressed VaR is also diversified across all asset classes. The dominant asset classes are interest rates and commodities. The increase in the commodities asset class results in particular from trading in emissions certificates.

Stressed VaR contribution by risk type in the trading book | €m	**31.12.2021**	**31.12.2020**
Credit spreads	7	3
Interest rates	10	8
Equities	1	1
FX	5	7
Commodities	16	9
Total	**39**	**28**

In addition, the incremental risk charge and the equity event VaR figures quantify the risk of deterioration in creditworthiness and event risks in trading book positions. The incremental risk charge rose by €11m to €31m in the course of 2021. This is mainly due to position changes in the Corporate Clients segment and in Group Treasury.

The reliability of the internal model (historical simulation) is monitored in various ways, including by backtesting, on a daily basis. The VaR calculated is set against actually occurring profits and losses. The process draws a distinction between "clean P&L" and "dirty P&L" backtesting. In the former, exactly the same positions in the income statement are used as were used for calculating the VaR. This means that the profits and losses result only from changes in market prices (hypothetical changes in the portfolio value). In dirty P&L backtesting, by contrast, profits and losses from newly concluded and expired transactions from the day under consideration are also included (actual profits and losses induced by portfolio value changes). Profits and losses from valuation adjustments and model reserves are factored into dirty and clean P&L according to the regulatory requirements.

If the actual loss exceeds the VaR, it is described as a negative backtesting outlier. Analysing the results of backtesting provides an informative basis for checking parameters and for potential improvement to the market risk model. In 2021 two negative clean P&L outliers and one negative dirty P&L outlier were measured. The clean P&L outliers are mainly due to extraordinary price fluctuations related to trading in CO_2 emissions certificates. The dirty P&L outlier was mainly caused by market movements in interest rates and foreign currencies.

Checks were carried out to verify that none of the observed backtesting outliers were caused by model weaknesses. Backtesting is also used by the supervisory authorities for evaluating internal risk models. Negative outliers are classified by means of a traffic-light system laid down by the supervisory authorities. All negative backtesting outliers at Group level (from both clean P&L and dirty P&L) must be reported to the supervisory authorities, citing their extent and cause.

As the VaR concept gives a prediction of potential losses assuming normal market conditions, it is supplemented by stress tests. These stress tests measure the risk to which Commerzbank is exposed, based on unlikely but still plausible events. These events may be simulated using extreme movements on various financial markets. The key scenarios relate to major changes in credit spreads, interest rates and yield curves, exchange rates, share prices and commodities prices. Examples of events simulated in stress tests include all stock prices falling by 15%, a parallel shift in the yield curve and changes to the curve's gradient.

Extensive Group-wide stress tests and scenario analyses are carried out as part of risk monitoring.

The internal model's individual components are independently validated at regular intervals to assess their appropriateness for risk measurement. The identification and elimination of model weaknesses are of particular importance in this.

Banking book

The key drivers of market risk in the banking book are the Group Treasury portfolios, with their credit spread, interest rate and basis risks.

In market risk management, credit spread sensitivities in the banking and trading books are considered together. Credit spread sensitivities (downshift of 1 basis point) for all securities and derivative positions (excluding loans) were at €50m as at the end of 2021 (31 December 2020: €53m).

Most credit spread sensitivities related to securities positions measured at amortised cost. Changes in market price have no impact on the revaluation reserve or the income statement for these positions.

The impact of an interest rate shock on the economic value of the Group's banking book is simulated monthly in compliance with regulatory requirements. In accordance with the EU Banking Directive, the German Federal Financial Supervisory Authority and the European Central Bank have prescribed two scenarios of uniform, sudden and unexpected changes in interest rates (+/–200 basis points) to be used by all banks, which have to report on the results of this stress test every quarter. In the scenario 200 basis points, the yield curve is floored at 0 (negative sections of the yield curve are left unchanged).

As a result of the scenario +200 basis points, a potential economic loss of €2,523m as at 31 December 2021 (31 December 2020: €2,776m potential economic loss) was determined, and in the scenario –200 basis points a potential economic profit of €746m (31 December 2020: €343m potential economic profit). Commerzbank does not, therefore, need to be classified as a bank with elevated interest rate risk, as the decline in net present value represents less than 20% of its regulatory capital.

The interest rate sensitivity of the overall banking book (excluding pension funds) amounted to €7.3m as at 31 December 2021 (31 December 2020: €9.0m) per basis point of falling interest rates due to position changes in Group Treasury.

At the end of 2021 the first major milestone in the Interest Rate Benchmark Reform was reached. The publication of EONIA and of the LIBOR rates in UK pounds (GBP), Japanese yen (JPY) and Swiss francs (CHF) was discontinued; the US dollar (USD) LIBOR for 1-month, 3-month, 6-month and 12-month maturities can still be used for existing business until mid-2023. For new business, the procedural and technical prerequisites for using the new alternative reference interest rates have been put in place. With a few exceptions, the underlying LIBOR contracts have been adjusted in line with the new market conventions. The Strategic Initiative IBOR (Interbank Offered Rates) Transition launched to implement the benchmark reform was completed as planned in December 2021. The Bank has set up a smaller project to complete the pending tasks, in particular preparations for replacing the remaining USD LIBORs as at June 2023.

Further information on the benchmark reform can be found in Note 1 to the Group financial statements (Initially applicable, revised and new standards).

Pension fund risk is also part of market risk in the banking book. Our pension fund portfolio comprises a well-diversified investment section and a section comprising insurance-related liabilities. The duration of the liabilities is extremely long (cash outflows modelled over almost 90 years), and the main portion of the overall portfolio's present value risk is in maturities of 15 years and over. The main risk drivers are long-term euro interest rates, credit spreads and expected euro inflation due to anticipated pension dynamics. Equity, volatility and foreign exchange risk also need to be taken into consideration. Diversification effects between individual risks reduce the overall risk. The extremely long maturities of these liabilities represent the greatest challenge, particularly for hedging credit spread risk. This is because there is insufficient liquidity in the market for corresponding hedging products.

Market liquidity risk

Market liquidity risk is the risk of the Bank not being able to liquidate or hedge risky positions in a timely manner, to the desired extent and on acceptable terms as a result of insufficient liquidity in the market.

Market liquidity risk is taken into account in Commerzbank's risk-bearing capacity concept by scaling the value at risk to one year, i.e. the implicitly recognised liquidation period. Additional valuation adjustments for market liquidity risk are also reflected in the calculation of the risk coverage capital.

Liquidity risk

We define liquidity risk in the narrower sense as the risk that Commerzbank will be unable to meet its payment obligations on a day-to-day basis. In a broader sense, liquidity risk describes the risk that future payments cannot be funded for the full amount, in the required currency or at standard market conditions, as and when they are due.

Strategy and organisation

The Board of Managing Directors adopts the business strategy and the Bank's risk tolerance, which is associated with it. Liquidity risk tolerance is then operationalised by defining the liquidity reserve period and the limit framework. In order to ensure an appropriate liquidity risk management process, the Board of Managing Directors delegates certain competences and responsibilities in connection with the Group-wide liquidity risk strategy to the Risk and Treasury functions.

The Group Asset Liability Committee (ALCO) is responsible for limiting, analysing and monitoring liquidity risk and for strategic liquidity positioning. The Group ALCO is supported by various sub-committees in this.

Risk management

Commerzbank uses a wide range of tools to manage and monitor liquidity risks on the basis of its own liquidity risk model. The stress scenario within the Bank that underlies the model and is relevant for management purposes allows for the impact of both a bank-specific stress event and a broader market crisis. Binding regulatory requirements are an integral component of the management mechanism.

Group Treasury is responsible for the Group's liquidity management operations. Group Treasury is represented in all major locations of the Group in Germany and abroad and has reporting lines into all subsidiaries. Commerzbank manages its global liquidity centrally using cash pooling. This approach ensures that liquidity resources are used efficiently and that this occurs across all time zones, as Group Treasury units are located in Frankfurt, London, New York and Singapore. Additional information on this subject can be found in the "Funding and liquidity of the Commerzbank Group" section of the Group management report. Liquidity risk is monitored on the basis of the Bank's own liquidity risk model by the independent risk function.

The Bank has established early warning indicators for the purpose of managing liquidity risk. These ensure that appropriate steps can be taken in good time to secure long-term financial solidity.

Risk concentrations can lead to increased outflows of liquidity, particularly in a stress situation, and thus to increased liquidity risk. They can, for example, occur with regard to maturities, large individual creditors or currencies. By means of ongoing monitoring and reporting, emerging risk concentrations in funding can be recognised in a timely manner and mitigated through suitable measures.

This also applies to payment obligations in foreign currencies. The Bank also mitigates concentration by continuously using its access to broadly diversified sources of funding, in particular diverse customer deposits and capital market instruments.

Commerzbank also ensures that it monitors foreign exchange risks and fulfils the currency matching requirements for highly liquid assets and net liquidity outflows.

In the event of a market-driven and/or idiosyncratic liquidity crisis, the liquidity contingency plan provides for certain measures which, depending on the nature of the crisis, can be initiated either through Treasury's extended authority to act or through the recovery process of the recovery plan. The liquidity contingency plan is an independent part of emergency planning and upstream of the recovery plan. Both the liquidity contingency plan and the recovery plan at Commerzbank are updated at least once a year; the individual liquidity emergency measures are checked regularly during the year for plausibility. The liquidity contingency plan also defines a clear allocation of responsibilities for the processes to be followed in emergency situations and gives details of any action that may need to be taken.

Liquidity risk model

A key component of liquidity risk management is the daily calculation of the liquidity gap profile. The liquidity gap profile shows the deterministic or stochastic inflows and outflows expected in the future on a given reporting date and across all portfolios. This forms the basis for calculating liquidity requirements or excess liquidity per maturity band. This also includes modelling the proportion of customer deposits that will be permanently available, known as the core deposit base.

The liquidity gap profile is also used to set the issuance strategy of the Commerzbank Group, which is operationalised by the Group Treasury division. The Group Finance division is responsible for calculating and allocating liquidity costs on the basis of the liquidity gap profile, which are then incorporated in the management of the segments' business activities.

Based on the liquidity gap profile, management mechanisms such as recovery and early warning indicators are limited and monitored accordingly. The liquidity gap profile is limited in all maturity bands. The Group limits are broken down into individual Group units and currencies. The internal liquidity risk model is complemented by the regular analysis of additional adverse, reverse and historical stress scenarios.

Additional information on the current developments caused by the coronavirus pandemic can be found in the "Funding and liquidity of the Commerzbank Group" section of the management report in the Annual Report 2021.

Quantification and stress testing

Commerzbank uses a wide range of tools to manage and monitor liquidity risks on the basis of its own liquidity risk model. In addition to internal economic considerations, liquidity risk modelling also factors in the binding regulatory requirements under the Capital Requirements Regulation (CRR) and the Minimum Requirements for Risk Management (MaRisk). Commerzbank incorporates this within its liquidity risk framework, thereby quantifying the liquidity risk appetite established by the Board of Managing Directors.

The stress scenarios within the Bank that underlie the model and are relevant for management purposes allow for the impact of both a bank-specific stress event and a broader market crisis. The Commerzbank-specific idiosyncratic scenario simulates a stress situa-tion arising from a rating downgrade of two notches, whereas the market-wide scenario is derived from experience of the subprime crisis and simulates an external market-wide shock. The main liquidity risk drivers of both scenarios are a markedly increased outflow of short-term customer deposits, above-average drawdown of credit lines, prolongations of lending business regarded as commercially necessary, the need to provide additionnal collateral for secured transactions and the application of higher risk discounts to the liquidation values of assets.

As a complement to the individual scenarios, the Bank also simulates the impact on the liquidity gap profile (net liquidity position) of a scenario that combines idiosyncratic and market-specific effects. The liquidity gap profile is shown for the whole of the modelling horizon across the full spectrum of maturities and follows a multi-level concept. This allows for a nuanced presentation – deterministic and modelled cash flows in existing business on the one hand and the inclusion of prolongations on the other.

The table below shows the liquidity gap profile values after application of the respective stress scenarios for periods of one and three months as at the end of the year. Significantly more liquidity flows out in a combined scenario compared with the individual scenarios. As at the end of 2021, in the one-month and three-month periods, the combined stress scenario leaves net liquidity of €12.8bn and €14.7bn respectively.

Net liquidity in the stress scenario | €bn		**31.12.2021**	**31.12.2020**
Idiosyncratic scenario	1 month	20.8	21.1
	3 months	24.1	16.8
Market-wide scenario	1 month	24.1	23.3
	3 months	26.0	16.9
Combined scenario	1 month	12.8	14.7
	3 months	14.7	8.4

Liquidity reserves

Significant factors in the liquidity risk appetite include the reserve period, the size of the liquidity reserve portfolio held to compensate for unexpected short-term liquidity outflows, and the limits in the various maturity bands. As the liquidity reserve portfolio consists of highly liquid assets, it functions as a buffer in stress situations. The liquidity reserve portfolio is funded in line with the liquidity risk appetite to ensure that it is kept at the required size throughout the entire reserve period stipulated by the Board of Managing Directors.

As at the end of 2021, the Bank had highly liquid assets of €60.0bn. This liquidity reserve is funded in line with the liquidity risk appetite to ensure that it is kept at the required size throughout the entire reserve period stipulated by the Board of Managing Directors.

Part of this liquidity reserve is held in a separate stress liquidity reserve portfolio managed by Group Treasury to cover liquidity outflows should a stress event occur and to ensure solvency at all times. The amount of the stress liquidity reserve portfolio is checked and, if necessary, adjusted as part of the daily liquidity risk calculation.

The Bank also holds an intraday liquidity reserve portfolio. As at the reporting date, the total value of this portfolio was €6.1bn (31 December 2020: €6.1bn).

The liquidity reserves comprising highly liquid assets are made up of the following three components:

Liquidity reserves from highly liquid assets | €bn	**31.12.2021**	**31.12.2020**
Highly liquid assets	60.0	94.8
of which level 1	56.3	85.6
of which level 2A	3.4	8.6
of which level 2B	0.3	0.6

Liquidity ratios

Throughout the 2021 financial year, Commerzbank's internal liquiddity ratios, including the regulatory liquidity coverage ratio (LCR), were above the limits set at least annually by the Board of Managing Directors. The same is true of compliance with the survival period calculation set down by MaRisk.

The LCR is calculated as the ratio of liquid assets to net liquidity outflows under stressed conditions. It is used to measure whether a bank has a large enough liquidity buffer to independently withstand any potential imbalance between inflows and outflows of liquidity under stressed conditions over a period of 30 calendar days.

In 2021, Commerzbank significantly exceeded the minimum ratio of 100% stipulated for that year on every reporting date. As at the end of 2021, the average month-end value of the LCR over the last 12 months was 145.1% (as at the end of 2020: 135.7%).

The Bank has established corresponding limits and early warning indicators to ensure the LCR minimum requirements are met. Additional information on the LCR can be found in the "Funding and liquidity of the Commerzbank Group" section of the Group management report.

Operational risk

Based on the Capital Requirements Regulation (CRR), Commerzbank defines operational risk (OpRisk) as the risk of loss resulting from the inadequacy or failure of internal processes, people and systems or from external events. This definition includes, among other things, legal risk, human resources risk, IT risk, outsourcing risk or tax risk, as well as product risk, conduct risk and environmental risk in the area of social governance (ESG). In this definition the focus is not on strategic or reputational risk. In view of their increased economic significance, compliance risk and cyber risk are managed as separate risk types. However, losses from compliance risks and cyber risks are still incorporated into the model for determining the economic capital required for operational risks.

Strategy and organisation

Within Commerzbank, OpRisk and governance issues of the Internal Control System (ICS) are closely connected in terms of both organisational structure and methodology and are continuously being enhanced. This is because many OpRisk cases are closely linked with failures in the control mechanisms. A properly functioning ICS thereby helps to reduce or avoid losses from operational risks and thus to low-er the amount of economic capital required to cover operational risks in the medium to long term. Conversely, the operational risk management systems enable the ICS to adapt itself consistently to them. The further development of the ICS structure is an essential aspect of the proactive reduction or prevention of operational risks where possible.

Chaired by the CRO, the Group OpRisk Committee meets at least four times a year and deals with the management of operational risks within the Commerzbank Group. It also acts as the escalation and decision-making committee for key OpRisk topics that span all areas. The Management Boards and/or the Segment Committees with responsibility for operational risk deal with the management of operational risk in the relevant units. They analyse OpRisk issues that affect them, such as loss events, and define subsequent measures or recommend action.

Commerzbank's OpRisk strategy is approved on an annual basis by the Board of Managing Directors after it has been discussed and voted upon in the Group OpRisk Committee. The OpRisk strategy describes the risk profile, key elements of the desired risk culture, its management framework and measures to be taken by Commerzbank to manage operational risk.

OpRisk management is based on three consecutive levels (three lines of defence) which, when taken together, are crucial for reaching the given strategic aims.

Risk management

Commerzbank takes an active approach to managing operational risk, aiming to systematically identify OpRisk profiles and risk concentrations and to define, prioritise and implement risk mitigation measures.

Operational risks are characterised by asymmetric distribution of losses. This means that most of the losses are relatively small, while isolated losses with a very low probability of occurrence have the potential to be large and devastating. This makes it necessary, where possible, not only to limit high loss potential but also to proactively manage losses that can be expected to occur frequently.

To do this, Commerzbank has set up a multi-stage system that brings together the defined limits on economic capital (risk capacity) and those set for operative risk management during the year (risk ap-petite/tolerance), complemented by rules on the transparent and conscious acceptance and approval of individual risks (risk acceptance).

OpRisk management includes an annual evaluation of the Bank's ICS key controls and a risk scenario assessment. Furthermore, OpRisk loss events are subjected to ongoing analysis and to ICS backtesting on an event-driven basis if relevant. Lessons learned activities are carried out after all material loss events.

Since the fourth quarter of 2021 Commerzbank has measured regulatory capital using the standardised approach (SA), while economic capital for operational risks continues to be measured using a dedicated internal model. Risk-weighted assets for operational risks on this basis came to €19.8bn at the end of the fourth quarter of 2021 (31 December 2020: €18.3bn). This rise was mainly due to the switch from the advanced measurement approach (AMA) to the standardised approach. The economically required capital was €1.5bn. The internal model used for this corresponds to the AMA previously in use. A comparison with the prior year (31 December 2020: €1.5bn) shows a stable trend.

The following table gives an overview of risk-weighted assets (RWA) and the economically required capital (ErC) by segment:

	31.12.2021		31.12.2020	
€bn	RWA	ErC	RWA	ErC
Private and Small-Business Customers	10.3	0.8	6.1	0.5
Corporate Clients	4.9	0.3	7.4	0.6
Others and Consolidation	4.6	0.4	4.8	0.4
Group	**19.8**	**1.5**	**18.3**	**1.5**

The total charge for OpRisk events as at the end of the fourth quarter of 2021 was approximately €1,136m (full-year 2020: €345m). The events mainly related to losses in the "Products and business practices" category. These primarily include the provision of mBank for legal risks related to Swiss franc loan agreements, which is a key driver of the increase compared to the previous year. In addition, process-related risks materialised in the context of projects.

Realised losses from operational risks due to the coronavirus only include cost items. The Bank has still not incurred any damage due to a disruption of its core banking processes. In accordance with regulatory requirements, the recognition of these recurring cost items was discontinued in 2021. They are part of a "new normal", which was taken into account in the multi-year plan.

OpRisk events[1] | €m	31.12.2021	31.12.2020
Internal fraud	–1	1
External fraud	35	9
Damage and IT failure	2	29
Products and business practices	738	277
Process related	352	29
HR related	9	0
Group	**1,136**	**345**

[1] Losses incurred and provisions, less OpRisk-based income and repayments.

A structured, centralised and decentralised reporting system ensures that the management of the Bank and its segments, members of the OpRisk Committee and the supervisory bodies are informed regularly, promptly and fully about operational risk. OpRisk reports are produced quarterly. They contain changes in OpRisk losses, the segments' main loss events, current risk analyses, changes in the capital requirement and the status of measures implemented. Operational risks are also part of the regular risk reporting process to the Board of Managing Directors and to the Supervisory Board's Risk Committee.

Other risks

To meet the requirements of the Basel framework, MaRisk requires an integrated approach to risk that also includes unquantifiable risk categories. At Commerzbank, these are subjected to a qualitative management and control process. The following risk types except compliance risk, model risk and cyber risk are outside the responsibility of the CRO.

Legal risk

According to the CRR, legal risk falls within the definition of operational risk. It primarily arises for the Commerzbank Group when the Bank's claims cannot be enforced for legal reasons or when claims can be made against the Bank because the underlying law was not observed or has changed since a transaction was concluded.

The operation of banking and financial services transactions that are subject to regulatory provisions may also result in legal risk. This risk may also take the form of orders or sanctions issued or imposed by one or more authorities whose supervision Commerzbank is subject to anywhere in the world. Legal risk also arises in realised losses or provisions due to or in connection with court cases brought against Commerzbank (passive proceedings). Cases brought by Commerzbank (active proceedings) generally represent a credit risk rather than an operational risk, so the risk of loss is already taken into account through write-downs. However, the costs of legal action (court and lawyers' costs) for active proceedings are classified as legal risk.

Organisation

Within Commerzbank, the functional management of legal risk throughout the Group is the responsibility of Group Legal. All legal staff at the various Group Legal locations including the foreign branches as well as the legal staff of the legal departments of the domestic and foreign subsidiaries are as legal risk managers operationally responsible for the identification and management of the Group-wide legal risk within Commerzbank.

Risk management

The task of the Group's legal risk managers is to detect legal risks and all losses potentially resulting from them at an early stage, to highlight possible solutions that might avoid or minimise such losses, and to play an active part in reaching decisions concerning legal risks. They must ensure that they are always up to date with all legal changes or new findings within their area of responsibility and inform the business units affected about the impact on legal risk and any action that needs to be taken as a result.

The legal risk managers are responsible for arranging or adjusting legal provisions and look after and monitor new and ongoing court proceedings.

In the case of passive proceedings, provisions are recognised on the basis of the risk assessment carried out by the responsible legal risk manager. The expected risk of loss for proceedings generally corresponds to the size of the provisions to be recognised. To estimate the expected loss, the amount that the Bank would reasonably have to pay to settle the dispute at the current point in time is calculated after each significant stage in the proceedings. In the case of active proceedings, provisions are usually only recognised for the expected court and lawyers' costs.

Group Legal provides information about all major court proceedings and risk trends in a quarterly litigation report. This report is sent to the Bank's management and Supervisory Board, the supervisory authority and the OpRisk Committee.

Current developments

Commerzbank and its subsidiaries are involved in a variety of court and arbitration cases, claims and official investigations (legal proceedings) in connection with a broad range of issues. They include, for example, allegations of defective advice, disputes in connection with credit finance or payment transactions, entitlements to occupational pensions, allegedly false accounting and incorrect financial statements, enforcement of claims due to tax issues, allegedly incorrect prospectuses in connection with underwriting transactions, alleged violations of competition laws, and cases brought by shareholders and other investors as well as investigations by supervisory authorities. In addition, changes to rulings by supreme courts, which may render them more restrictive, as well as to legal conditions, e.g. in the private customer business, may result in more claims being brought against Commerzbank or its subsidiaries. In these court cases, claimants are mostly asking for the payment of compensation, claims on account of unjust enrichment or the reversal of agreements already entered into. If the courts were to find in favour of one or more of the claimants in these cases, Commerzbank could be liable to pay compensation, which could in some cases be substantial, or could incur the expense of reversing agreements or of other cost-intensive measures. Regulatory authorities and governmental institutions in various countries in which Commerzbank and its subsidiaries are or have been active have for some years been investigating irregularities in connection with the fixing of foreign exchange rates and with foreign exchange business in general. In the course of these investigations, regulatory authorities and governmental institutions have also sought checks on Commerzbank or have approached the company with requests for information. Commerzbank has cooperated fully with these bodies and also looked into the relevant matters on the basis of its own comprehensive investigations. The cases are no longer active with the exception of one case in which the investigating authority transferred the matter to the national competition tribunal. Financial consequences cannot be ruled out.

The public prosecutor's office in Frankfurt is investigating equity transactions conducted by Commerzbank and the former Dresdner Bank around the dividend record date (cum-ex transactions). Commerzbank had already initiated a forensic analysis of cum-ex transactions at the end of 2015, which was concluded at the start of 2018 in respect of Commerzbank's equity transactions and in September 2019 in respect of the equity transactions of the former Dresdner Bank. All back taxes demanded by the tax authorities have been paid.

The public prosecutor's office in Cologne has been conducting investigations at Commerzbank since September 2019 in connection with a separate case concerning cum-ex transactions. It is investigating on suspicion that the Bank (including Dresdner Bank) was involved in cum-ex transactions in various roles, including by supplying shares to third parties who were allegedly acting as short sellers. According to the current understanding, these proceedings do not involve Commerzbank's own tax credit claims with regard to capital gains tax and the solidarity surcharge on dividends.

The Bank is cooperating fully with authorities conducting investigations into cum-ex transactions. It is currently not possible to predict whether this will give rise to a burden or the amount thereof.

Based on the circular on cum/cum transactions published by the Federal Ministry of Finance (BMF) in 2017, the tax auditors commented on the treatment of these transactions in the form of audit notes. The tax office reduced the credit for capital gains taxes accordingly. In response, Commerzbank Aktiengesellschaft made value adjustments to tax credits shown in the balance sheet and set up additional provisions for possible repayment claims in order to reflect the changed risk situation fully and appropriately. The BMF published a revised version of its circular on cum/cum transactions on 9 July 2021. In view of the potential impact of the BMF circular, the provision was adjusted in the second quarter of 2021. Based on current knowledge, adequate provisions are now in place for the tax risks arising from this issue. The possibility of further charges over and above the provisions recognised by the Bank cannot be completely ruled out.

With respect to cum-cum securities lending transactions, Commerzbank is exposed to compensation claims from third parties for crediting entitlements that have been denied. Based on the analyses performed, Commerzbank considers it rather unlikely that such claims could be enforced. However, it cannot be ruled out. Under these circumstances, Commerzbank estimates the potential financial impact in the upper double-digit million range, plus interest on arrears. The possibility that this conclusion could alter as developments unfold, for example in connection with assessments made by the tax authorities and fiscal/civil courts, cannot be completely ruled out.

In May 2017, a Polish court admitted a class action lawsuit against a subsidiary of Commerzbank alleging the ineffectiveness of index clauses in loan agreements denominated in Swiss francs. A total of 1,731 plaintiffs have joined the class action. The court of appeal partially overturned and referred back the judgement of the court of first instance, which dismissed the class action in its entirety; the court of first instance has meanwhile dismissed the claim, legal remedies are still possible.

Independently of this, numerous borrowers have also filed individual lawsuits for the same reasons. In addition to the class action, 13,036 other individual proceedings were pending as at 31 December 2021 (31 December 2020: 6,870). The subsidiary is defending itself against all of the claims. In some cases, the subsidiary has filed counterclaims for compensation for the provision of capital.

The case law of the Polish courts on loans with indexation clauses has so far been inconsistent overall. As at 31 December 2021, there were 473 final rulings in individual proceedings against the subsidiary, of which 82 were decided in favour of the subsidiary and 391 were decided against the subsidiary. A total of 227 proceedings before courts of second instance have been suspended because of legal issues that are being considered by the Polish Supreme Court and the European Court of Justice (ECJ).

In a non-public session on 7 May 2021, the Polish Supreme Court (via a panel of seven judges) ruled on referral questions from an ombudsman of the Polish banking regulator relating to the nature of the parties' mutual claims and to limitation. In the Bank's view, the judgement does not change the current risk assessment.

The session of the Civil Chamber of the Polish Supreme Court examining loan agreements in Swiss francs with index clauses was held on 2 September 2021. The questions referred by the President of the Supreme Court were not answered; instead, questions on the legality of the process for appointing new judges were referred to the ECJ. The further course of the proceedings and the outcome remain to be seen.

On 29 April 2021, the European Court of Justice (ECJ) delivered a judgement (C-19/20) on five questions referred for a preliminary ruling by a Polish court in proceedings against another bank. In the Bank's view, the judgement does not change the current risk assessment. Other preliminary ruling proceedings on loans with indexation clauses are pending before the European Court of Justice, two of which concern proceedings against the subsidiary. Decisions are not expected until the second half of 2022.

In December 2020, a proposal by the local supervisory authority to convert foreign currency loans into local currency loans was announced.

In December 2021, the subsidiary made settlement offers to a representative group of 1,278 customers with active contracts. The maximum hypothetical cost would be €645.5m if all customers with active loans accepted the offer. The subsidiary will evaluate the results of the pilot project and analyse further options for action.

Against the background of the inconsistent case law to date, the small number of rulings in the last instance and outstanding decisions in principle from the Supreme Court and the ECJ, the amount of the provision on the balance sheet for this set of issues is highly discretionary. Until 31 December 2020, legal risks in connection with Swiss franc loan agreements with indexation clauses were accounted for in their entirety in accordance with IAS 37. Swiss franc loans that have not been fully repaid are now primarily shown in accordance with IFRS 9. The accounting policy was not adjusted for loans that have already been fully repaid and legal costs; these are still accounted for in accordance with IAS 37. In the case of loans that have not yet been fully repaid, the legal risks are taken into account in the gross carrying amounts of the receivables directly when estimating the cash flows. Recognition in accordance with IFRS 9 is standard market practice in the subsidiary's domestic market and thus increases comparability with the financial statements of other market participants and comparability for the Polish regulator. Applying IFRS 9 rather than IAS 37 therefore provides more relevant information. The measurement method used to estimate the impact on the cash flows expected to arise from the loans remained largely unchanged compared with the previous measurement method.

As at 31 December 2021, the portfolio of loans denominated in Swiss francs that have not been fully repaid had a carrying amount of 9.1bn Polish zloty; the portfolio that had already been repaid amounted to 7.3bn Polish zloty when it was disbursed. Overall, the Group recognised a provision of €899m for the risks arising from the matter, including potential settlement payments and the class action lawsuit. The provision for individual lawsuits amounted to €312.9m in the previous year. In addition, costs for active claims totalling €18.7m were recorded in the financial year.

The methodology used to calculate the provision and remeasurement effect is based on parameters that are varied, discretionary and in some cases associated with considerable uncertainty. Key parameters are the estimated total number of plaintiffs, the probability of losing a lawsuit in the last instance, the amount of the loss and the development of the exchange rate. Fluctuations in the parameters and the interdependencies between them may mean that the amount of the provision has to be adjusted significantly in the future.

Another component in determining the provision is the expectation regarding the development of the settlement discussions. As at the reporting date, the subsidiary had accounted for risks in connection with future settlement payments in the amount of €219.7m. This amount corresponds to 34% of the maximum cost of the settlements based on the calculation method used in the pilot project. To determine the provision for the settlement programme, the subsidiary assumes that the maximum acceptance rate will not exceed 34% of active contracts. If the acceptance rate changes by +/–1 percentage point and all other relevant assumptions remain unchanged, the provision for the settlement programme would change by +/–€6.5m.

As at the reporting date, the subsidiary estimated the risk of defeat on the basis of expert assessments, which are supported by legal opinions on future case law trends.

Assuming otherwise unchanged parameters, the following sensitivities result for the main parameters underlying the recognition of provisions or remeasurement effects for the individual lawsuits:

- The number of future claimants increases by 1% of borrowers: change of €+15m.
- The probability of a ruling by the court of last instance that is unfavourable to the subsidiary changes by +/–1 percentage point: change of €+/–12m.
- The assumed weighted average loss changes by +/–1 percentage point: change of €+/–8m.

In April 2021, the German Federal Court of Justice ruled on the mechanism for changes to banks' general terms and conditions (AGB Banken) in a case against another bank and declared the relevant clauses of the general terms and conditions to be void. This mechanism stipulated that the customer's consent to certain changes in the contract was given after a certain period of time if the customer had not objected. The Bank has examined the impact of this case law on its business units and products, as the charges introduced or increased for consumers as a result of the mechanism for changes to banks' general terms and conditions may be void. The Bank has set up a central unit to deal with the issues arising from the judgement on a consolidated basis. As a result, clear and understandable information for affected customers was ensured and a customer interface was created for the reimbursement of unjustly charged fees. The necessary new agreement of the general terms and conditions in existing customer business is also being coordinated. The Bank has created a provision for customer claims.

Some of these cases could also have an impact on the reputation of Commerzbank and its subsidiaries. The Group recognises provisions for such proceedings if liabilities are likely to result from them and the amounts to which the Group is likely to be liable can be determined with sufficient accuracy. Since there are considerable uncertainties as to how such proceedings will develop, the possibility cannot be ruled out that some of the provisions recognised for them may prove to be inadequate once the courts' final rulings are known. As a result, substantial additional expense may be incurred. This is also true in the case of legal proceedings for which the Group did not consider it necessary to recognise provisions. The eventual outcome of some legal proceedings might have an impact on Commerzbank's results and cash flow in a given reporting period; in the worst case, it cannot be fully ruled out that the liabilities which might result from them may also have a significant impact on Commerzbank's earnings performance, assets and financial position.

Further information on legal proceedings may be found in Note 58 regarding provisions and Note 60 regarding contingent liabilities and lending commitments in the Group financial statements.

Compliance risk

Compliance risk falls within the definition of operational risk according to the Capital Requirements Regulation (CRR). Commerzbank ac-knowledges and understands the existence of inherent compliance risk in its areas of business, which are subject to the risk of abuse in general and in particular by financial crime. Compliance risk includes the risks associated with money laundering, terrorist financing, sanctions and embargoes, markets compliance, fraud, bribery and corruption.

In order to actively promote a compliance culture in the Bank, the Board of Managing Directors of Commerzbank has laid down and communicated corresponding values in the Code of Conduct.

Organisation

Group Compliance is led by the division head of Group Compliance, who reports directly to the Board of Managing Directors. Pursuant to Art. 87 (5) of the German Securities Trading Act (WpHG) and BT 1.1 MaComp (minimum requirements of the compliance function), the division head of Group Compliance is both the Group's Compliance Officer and, under Art. 25 h (7) of the German Banking Act (KWG) and Arts 7 and 9 of the German Anti-Money Laundering Act (GwG), the Anti-Money Laundering Officer; this person is super-vised as such by the Federal Financial Supervisory Authority (BaFin).

Group Compliance is responsible for:

A. The four types/areas of compliance risk:

1) anti money laundering/combating terrorism financing

2) sanctions and embargoes

3) combating fraud, bribery and corruption

4) markets compliance

as well as

B. Further responsibilities:

- coordination of the requirements under MaRisk section 4.4.2 ("MaRisk compliance function"),
- independent implementation of internal special investigations with compliance relevance.

The responsibilities based on the obligations under the QI (Qualified Intermediary), FATCA (Foreign Account Tax Compliance Act) and CRS (Common Reporting Standard) regimes as well as in relation to the prevention of the aiding and abetting of tax evasion (ATEF, Anti-Tax Evasion Facilitation) were bundled within the Group Tax function in October 2020 and have therefore no longer been part of the other tasks of Group Compliance since that date within Germany. The corresponding role of the QI and FATCA Responsible Officer will also be transferred to Group Tax in 2022. In the foreign locations, the roles and responsibilities with regard to ATEF-related tasks under the overall responsibility of Group Tax remain unaffected by this structural change and will continue to be carried out there by the local Group Compliance function.

Risk management

To prevent compliance risks, Commerzbank has implemented security systems and controls for its transactions, customers, products and processes. These procedures for ensuring compliance with material legal provisions and requirements are referred to in their entirety as a compliance management system. Commerzbank's compliance management system is based on inter-national market standards and the regulatory requirements in the various countries which are relevant for Commerzbank's business activities. Commerzbank is constantly developing its compliance management system in order to meet its responsibilities and address the growing complexity and increasing regulatory requirements. Under the three lines of defence principle, protecting against undesirable compliance risks is an activity that is not restricted to the compliance function (Group Compliance). Instead, the organisational control and monitoring elements are aligned in three sequential levels. The units in the first line of defence (1st LoD) assume responsibility as part of their operational activities for identifying and managing risks and for complying with their own business rules; they are also responsible for setting up process-oriented control mechanisms. Group Compliance, the second line of defence (2nd LoD), sets standards for appropriate risk management, oversees the appropriateness and effectiveness of the procedures and controls in the first line of defence, and assesses and communicates any deficiencies found. In addition, Group Compliance carries out analyses and assessments of compliance risks and ensures that the risk management framework is implemented. Internal Audit, the third line of defence (3rd LoD), uses regular and independent audits to check that compliance in both the 1st LoD and 2nd LoD is appropriate and effective.

Compliance risks are managed in a control circuit with interacting elements. Commerzbank constantly monitors relevant regulatory requirements and ensures the definition and/or adjustment of corresponding internal standards intended to make sure it complies with the requirements. Regular internal training measures and consulting services from the compliance function support the effective implementation of these standards in the Group. Implementation encompasses setting up and carrying out suitable processes and controls in daily work, assuring their quality and testing their effectiveness in the 1st and 2nd LoD. Compliance risks are monitored and are the subject of regular internal reporting. Where necessary, matters are escalated according to their urgency and severity.

The compliance sub-risk strategy, as part of the overall risk strategy of Commerzbank, sets the risk strategy framework for dealing with compliance risks and contains a detailed description of compliance risk management in addition to strategic and organisational elements. In particular, the risk appetite per compliance risk type is specified and the strategic fields of action are defined.

The risk analysis (compliance risk analysis) is one of the core elements of risk management. It assesses the inherent risk arising from doing business with different customer groups and products and compares this in the Control Assessment with an evaluation of the corresponding control environment for mitigating the inherent risk. A residual risk is determined as the outcome. The Bank defines measures to further enhance risk management (e.g. introducing additional controls) as necessary and tracks implementtation closely.

Current developments

In recent years, Commerzbank has worked through the majority of the findings from the settlements with various US authorities regarding violations of US sanctions and anti-money laundering provisions. The US monitor submitted its final report dated 15 October 2018, thus concluding its on-site investigations. In accordance with the terms of the engagement letter between the Bank and the monitor, the monitorship ended on 24 June 2019. The Bank has made good progress in carrying out the agreed implementation programmes and has executed most of the measures. Commerzbank continues to provide quarterly reports to the DFS (Department of Financial Services) on the progress of implementation plans.

In line with the requirements of the UK Financial Services and Markets Act 2000 (FSMA), in 2017 Commerzbank London mandated a consulting company as a “skilled person”. The consulting company carried out a review of existing structures and processes (especially with regard to money laundering/financing of terrorism as well as sanctions/embargoes) and prepared a report for the UK Financial Conduct Authority (FCA). Commerzbank London subsequently launched a comprehensive remediation project, the implementation of which was evaluated by the “skilled person”, with half-yearly reports sent to the FCA. In May 2021 the FCA officially declared the skilled person programme to be completed.

Reputational risk

Reputational risk is the risk that stakeholders may lose confidence in Commerzbank or that its reputation may be damaged as a result of negative events in its business activities. Commerzbank’s stakeholder groups include in particular the public and the media, non-governmental organisations and its customers. In the present-day competitive environment, a company’s reputation is becoming more and more important. The main factor determining this is how companies handle sustainability considerations (environmental, ethical or social risks) in the market segments’ customer business (intrinsic reputational risks). Companies are judged not only on the basis of people’s personal experiences of them, but also on reports reaching the public, especially through the media. Reputational risk therefore goes hand in hand with communication risk.

Strategy and organisation

All employees and managers have a fundamental duty to protect and reinforce Commerzbank's good reputation as a significant element of its enterprise value. The segments and significant subsidiaries bear direct responsibility for reputational risk resulting from their particular business activity. The Reputational Risk Management department is part of the central Group Communications division of the Commerzbank Group and focuses on intrinsic reputational risk that may directly lead to reputational damage among stakeholder groups. The department maintains close links with the relevant front office units. Management of intrinsic reputational risk is the responsibility of the Chairman of the Board of Managing Directors. It is a component of Commerzbank's overall risk strategy. Reputational Risk Management's tasks include identifying, evaluating and addressing intrinsic reputational risk in systematic processes at an early stage and suggesting or implementing appropriate measures (early warning function).

Risk management

Managing intrinsic reputational risk means identifying and reacting to potential environmental, social and ethical risks at an early stage, thereby reducing any potential communication risk or even preventing it completely. Intrinsic reputational risk is managed by means of a qualitative approach. As part of a structured process, transactions, products and customer relationships in connection with sensitive areas are assessed with reference to environmental, social and ethical risks on a qualitative five-point scale. This assessment can contain conditions and in some cases a negative verdict, which could lead to a rejection.

The sensitive areas regularly and comprehensively analysed in Reputational Risk Management include armaments exports and trans-actions, products and customer relationships relating to power generation and commodities extraction. Commerzbank's attitude towards these areas is laid down in positions and guidelines that are binding for all employees. Commerzbank's Reputational Risk Management department regularly observes and analyses new environmental, ethical and social issues and informs the relevant parts of the Bank about these. The reputational risks identified and addressed by the department are incorporated into the quarterly reputational risk report – part 1: non-quantifiable risks; part 2: high and major intrinsic reputational risks (sustainability issues) – which is prepared for the Board of Managing Directors and the Risk Committee of the Supervisory Board.

Environmental, social and governance (ESG) risks

The integration of non-financial aspects into the Bank's risk management processes is hugely important for sustainable finance. In particular, these include risks resulting from climate change. We do not see climate-related risks as a separate, "new" type of risk, but as a cross-sectional driver (what is known as a horizontal risk) that can materialise in the known types of risk – especially in credit risk. The new course steered by companies and society towards acting sustainably gives rise to transition risks. Physical risks will increase if the shift to a climate-preserving future is not made quickly and rigorously enough. Physical risks include, for example, rising sea levels and flooding for the real estate sector, along with crop failures in agriculture because of heatwaves, or low water levels in rivers, with implications for the transport and chemical industries. Companies encounter transition risks, for example, as a result of changes in energy policy, changes in market demand or technological changes.

We have examined the possible future impact of physical and transition risks on the loan portfolio as part of scenario analyses. To this end, we tested our portfolio in various scientific climate scenarios of the International Energy Agency (IEA, 1.8°C scenario for transition risks) and the Intergovernmental Panel on Climate Change (IPCC, 3-4°C scenario for physical risks). In the future, we will also use the scenarios of the Network for Greening the Financial System (NGFS).

The analyses were carried out using a specific model that holistically translates the relevant parameters of a scenario into eco-nomic effects (changes in balance sheet ratios). With regard to transition risks, changes in regulation, price changes, changes in supply and demand and the effects of technological changes are considered, among other things; in the case of physical risks, the effects of all relevant events (storm/hurricane, drought, heat, flood, sea level rise) are taken into account. Periods up to at least 2050 were considered.

Transition risks are industry-specific, with sometimes significant differences in the sub-sectors within an industry (e.g. mechanical engineering). There is also a connection between the degree of adaptation of a company, i.e. its progress in the transition, and the risk. In the case of physical risks, the regional/ geographical distribution of the portfolio is relevant, too.

As a major financier of the German economy, we are also active in sectors that are particularly exposed to climate-related risks. However, we have little exposure to some of the hardest-hit sectors (agriculture, for example). Climate-risk-sensitive sectors with significant exposure include the energy sector, the automotive sector and mechanical engineering. Owing to the geographical focus of our portfolio in Germany and Europe, we are less affected by physical risks associated with some events (e.g. hurricanes, sea level rise) than other regions. As a result, we consider the transition risks to be more relevant to our portfolio.

In order to proactively manage the effects of climate-related risks in the lending business, we are systematically optimising our risk management processes and methods. Lending decisions for corporate and institutional customers therefore take into account not only an individual risk assessment but also – where relevant – climate-related risk affectedness and resilience. In this, we are progressively combining the specific findings from the scenario analyses with the individual risk analysis at customer level. We take a portfolio-specific approach and thus take appropriate account of the differences in terms of affectedness and the risk drivers. In the particularly relevant portfolios (large companies, special financing and commercial real estate finance), we have supplemented the qualitative risk analysis in the individual loan decisions with specific aspects for the analysis of climate-related risks. In the future, the results of the analyses will be aggregated in a structured evaluation ("score"), which will be integrated into the decision-making process and can also be used in the context of portfolio analysis and management. In our target state, we want to integrate climate-related risks – as far as possible – into the quantitative credit risk analysis and thus fully reflect them across the process chain (including pricing, reporting).

Sustainability risks also play a major role in Commerz Real's asset management, for example when examining the potential effects of physical risks and evaluating new regulations. For this reason, Commerz Real introduced the first stage of a risk management tool in 2021, which is used to assess the real estate portfolio with regard to physical and transition risks. Scenario analyses are also a central component of the analysis when purchasing real estate, and are used to estimate the point in time of "stranding" with regard to different climate scenarios. The results feed into the risk assessment and the sustainability assessment of the real estate transaction and are taken into account accordingly in the management phase. In taking this approach, Commerz Real is following the recommendations of the TCFD for the management of climate-related risks through scenario analyses. The basis of climate risk management is collecting all consumption and emissions data in a way that is as reliable as possible. To this end, Commerz Real started implementing an integrated sustainability data management system in 2021 and also uses external partners to collect data on a global level.

Furthermore, in 2021 we carried out a comprehensive, cross-risk-type materiality analysis for climate-related and environmental risks for the first time. The risk type owners examined all types within the risk inventory that are regarded as fundamentally material for the Commerzbank Group and assessed the materiality of transition risks and physical risks for the respective risk type. Depending on the risk type, the assessment was made on a qualitative and/or quantitative basis. As a result of the analysis, the influence of climate-related and environmental risks for the risk types credit risk, market risk, operational risk (including compliance and cyber risk), reputational risk and business risk was assessed as material. The findings of the materiality analysis feed into the creation of the business strategy, the overall risk strategy and the sub-risk strategies as well as into other core elements of the Bank's internal process to ensure an adequate capital position (Internal Capital Adequacy Assessment Process – ICAAP), such as the internal stress test framework and the risk-bearing capacity concept. The materiality analysis for climate-related and environmental risks is therefore an integral part of the Commerzbank Group's risk governance.

IT risk

IT risk is a form of operational risk. In our internal definition, we define IT risk as risks to the security of information processed in our systems in terms of meeting the four IT security objectives set out below:

Confidentiality: Information is confidential if it is not accessible to, or capable of being reconstructed by, unauthorised persons, business processes or IT systems.

Integrity: Information possesses integrity if it has not been modified or destroyed by any unauthorised means. An information-processing system (IT system) possesses integrity if it can perform its intended functions without hindrance and free of unauthorised manipulations, whether deliberate or accidental.

Traceability: Actions and technologies applied to information are traceable if they themselves and their source can be traced back without any ambiguity.

Availability: Information is available if it is always capable of being used to a predefined extent by authorised persons, business processes and IT systems when it is required.

Commerzbank attaches great importance to the protection and security of its own information, of that entrusted to it by customers, and of the business processes and systems used to process it. They form a permanent core element in our digital strategy. The processing of information is based increasingly on information technologies. As such, our IT security requirements are at the heart of information security management. IT security requirements are based on the IT security objectives referred to above and are set down in policies and procedural instructions.

IT risks are identified, evaluated and regularly reviewed as part of IT governance processes. IT risk is covered in the quarterly IT risk report. Information security is also established as a principal objective for our Internal Control System. In the context of the coronavirus pandemic, consideration of the four IT security objectives for home office technologies became a more central focus. For this purpose, the outsourced services were considered in particular.

Relevant IT risks are also evaluated as part of operational risk management through risk scenarios and considered in the Bank's RWA calculation. This includes the risk of a breakdown of critical IT, the risk of external attack on the Bank's systems or data and, since 2021, the risks of modern cloud sourcing (cyber crime, advanced persistent threat (APT)[1] and cloud scenarios), the theft of corporate data or the default of service providers and vendors. See also the description of cyber risk.

Given the major importance of IT security to Commerzbank, it is further developed and improved on an ongoing basis by means of strategic initiatives. We have taken into account the significance of the "human" factor in IT security and cyber security by introducing additional training and awareness-raising measures.

Cyber risk

Cyber risk comprises risks with direct relevance to security and risks that lead to relevance to security (with respect to cyber space). The part of cyber space of relevance to Commerzbank is all connected IT environments within the Bank and those outside the Bank that lead to customers, business partners and service providers. Cyber risk is therefore concerned with the digital representation of the Bank's assets (data, information) within cyber space.

The strategic guidelines from the overall risk strategy and the cyber and information security strategy apply without limitation to cyber risk.

In recent years, there have been a number of serious security incidents – not involving Commerzbank – in the financial sector, leading many of the world's key regulators and standard setters, such as the DFS500 (Department of Financial Services, Section 500, Cyber-security Requirements for Financial Services Companies), NIST (National Institute of Standards and Technology) in the USA and MAS (Monetary Authority of Singapore) in Singapore, to place increasing emphasis on cyber security and publish additional requirements for the management of cyber risks. Within Europe and Germany, the EBA and BaFin are also focusing intensively on this topic.

Commerzbank manages cyber and information security risks via the Group division "Group Risk Management – Cyber Risk & Information Security" (GRM-CRIS), which reports to the Group Chief Information Security Officer (CISO). In addition to established security functions such as the Information Security Management System (ISMS) as well as risk reporting on key risk indicators, GRM-CRIS focuses on managing cyber risk appropriately and on strengthening Commerzbank's cyber-resilience (including its information security incident management capabilities). It also addresses the interaction between cyber and information security risks and other types of risk relating to areas such as human resources, procurement, business continuity management and physical security.

There are currently no concrete attack patterns or other anomalies specifically related to the coronavirus pandemic to which our institution, other financial service providers or financial market infrastructures are exposed. In addition, we are not currently aware of any additional methods used for attacking our employees or an expansion of our attack surface due to the increased remote use of Bank resources, e.g. in connection with split operations or working from home.

However, there are a range of attack vectors that try to engage in criminal activity by capitalising on public fears. This approach is known in the media as fearware and refers specifically to the most common form of its implementation, namely a combination of malware and social engineering powered by the fear of the person being targeted.

[1] An advanced persistent threat is a special form of cyber attack. The intention of an APT attack is to remain undetected for as long as possible in order to procure sensitive information (internet espionage) or cause other types of damage over a longer period.

In addition to the above-mentioned fearware activities, the increasing spread of ransomware in cyber crime has to be emphasised, even if Commerzbank has not been affected by this so far. Ransomware is a special type of malware that blocks access to or encrypts data on IT devices and then requires the victim to pay a ransom for its recovery. The significant damage potential of such attacks is illustrated by a number of recent incidents in which supply chains were disrupted. By closely interlinking the 1st and 2nd line of defence (LoD) activities in the field of cyber threat analysis, including corresponding safeguards and incident management processes, the Bank will continue to be adequately protected against ransomware attacks.

With regard to our customers, we are paying even more attention than usual to transactional anomalies, especially in the context of coronavirus-related fraud.

In December 2021, a security vulnerability was discovered in certain versions of the widely used Java logging library Log4j. This allows attackers to run malicious code on vulnerable systems. Commerzbank did not experience any production disruptions or any exploitation of the Log4j vulnerability at any time.

The task force, which was set up immediately after the vulnerability became known, continues to monitor the situation in order to be able to react promptly to any new attack patterns or new developments.

Human resources risk

Human resources risk falls within the definition of operational risk referred to in the Capital Requirements Regulation (CRR). The internal, management-oriented interpretation of this definition at Commerzbank includes the following elements in human resources risk:

Adjustment risk: Adjustment risk results when organisational and operational circumstances change (for example, restructuring, changes in management culture, qualification needs), these changes impact employees' scope of responsibilities and therefore require a greater willingness to change on the part of the staff. We offer selected internal and external training, continuing education and change programmes to ensure that the qualification levels of our employees keep pace with the current requirements, guidance is provided for structural changes and our employees can fulfil their duties and responsibilities.

Motivation risk: Motivation risk arises when demotivating factors are not eliminated and employees do not adequately perceive motivating factors such as management or remuneration. The effects (such as withheld performance by employees) can have a direct impact on the working environment and the organisation's productivity. Employee surveys enable us to respond as quickly as possible to potential changes in our employees' level of corporate loyalty and to initiate adequate measures.

Departure risk: Departure risk takes into account the consequences of undesired employee departures (for example, if an employee resigns voluntarily), particularly when high performers are involved. We take great care to ensure that the absence or departure of employees does not result in long-term disruptions to our operations. We also monitor staff turnover on a regular basis from both a quantitative and a qualitative perspective.

Supply risk: Supply risk reflects the consequences of insufficient staffing (for example, inadequate development of young staff) and the resulting consequences (operating bottlenecks, increased workload, lower productivity and illness). Appropriate quantitative and qualitative staffing aims to ensure that internal operating requirements, business activities and Commerzbank's strategy can be implemented.

Employees are a key resource for Commerzbank. Human resources risk is systematically managed by Group Human Resources with the aim of identifying, assessing and managing risks, for instance by applying selected personnel tools. The Board of Managing Directors is regularly informed about human resources risk.

Overall, the Bank will continue to monitor human resources risk. There is a risk that the human resources risk situation will deteriorate as a result of frequent structural changes due to a change in Group strategy. Change and organisational measures have already been initiated to counter human resources risk.

Business strategy risk

Business strategy risk is the medium- to long-term risk of negative influences on the achievement of Commerzbank's strategic goals, for example as a result of changes in the market or competitive environment, capital market requirements, regulatory/political factors or the inadequate implementation of the Group strategy (primary risk drivers).

Group strategy is developed further in a process that takes both external and internal factors into account. On the basis of these factors, the Board of Managing Directors sets out a sustainable business strategy describing the major business activities and steps required to meet the targets. To ensure proper implementation of the Group strategy to achieve the business targets, strategic controls are carried out through regular monitoring of quantitative and qualitative targets in the Group and the segments.

Responsibility for strategic corporate management lies with the Board of Managing Directors. Specific business policy decisions (acquisition and sale of equity holdings > €300m) also require the authorisation of the Supervisory Board's Risk Committee. In addition, all major initiatives and projects are decided by the Board of Managing Directors.

Model risk

Model risk is the risk of incorrect management decisions based on an inaccurate depiction of reality by the models used. With regard to the causes of model risk we distinguish between model risk from exceeding model boundaries and model risk from model errors (manual errors in model development/implementation). In line with the focus of the Group risk strategy, namely to ensure that the Bank has adequate capital and liquidity, the models for assessing risk-bearing capacity (capital requirements under the Basel framework and economic capital requirements, respectively) and liquidity resources are central for risk management.

The basic principles of model risk management are the identification and avoidance of model risks and appropriate consideration of known model risks (e.g. through conservative calibration or consideration of margins of conservatism or model reserves). Model risks that are unknown and hence cannot be mitigated are accepted as an inherent risk in the complexity of the Commerzbank business model. In respect of the governance of model risk management, requirements relating to model validation and model changes are established.

The ongoing coronavirus pandemic, with its considerable economic and social impact as well as the mitigating support provided by the governments, poses challenges for the risk models used. Commerzbank has introduced a series of measures to counter the increased model risk and to ensure appropriate management even in the current phase.

The management of model risks is currently being further strengthened. This concerns both aspects of governance and the scope of monitoring and validation activities. In addition, strategically relevant models are currently being revised fundamentally (various credit risk models). In this context, high standards in model development and initial validation play a major role.

Disclaimer

Commerzbank's internal risk measurement methods and models which form the basis for the calculation of the figures shown in this report are state-of-the-art and based on banking sector practice. The risk models produce results appropriate to the management of the Bank. The measurement approaches are regularly reviewed by Risk Controlling and Internal Audit as well as by German and European supervisory authorities. Despite being carefully developed and regularly checked, models cannot cover all the influencing factors that have an impact in reality or illustrate their complex behaviour and interactions. These limits to risk modelling apply in particular in extreme situations. Supplementary stress tests and scenario analyses can only show examples of the risks to which a portfolio may be exposed in extreme market situations; stress-testing all imaginable scenarios is not feasible. They cannot definitively estimate the maximum loss should an extreme event occur.