COMMERZBANK

Interim Report as at 30 June

2022

The bank at your side

Key figures

Income statement	1.1.–30.6.2022	1.1.–30.6.2021
Operating profit (€m)	1,289	570
Operating profit per share (€)	1.03	0.46
Consolidated profit or loss[1] (€m)	578	–533
Earnings per share (€)	0.46	–0.43
Operating return on equity based on CET1[2] (%)	10.8	4.8
Return on equity of consolidated profit or loss[2, 3] (%)	5.4	–3.9
Cost/income ratio in operating business (excl. compulsory contributions) (%)	54.9	72.9
Cost/income ratio in operating business (incl. compulsory contributions) (%)	64.3	81.5

Balance sheet	30.6.2022	31.12.2021
Total assets (€bn)	535.0	473.0
Risk-weighted assets (€bn)	175.0	175.2
Equity as shown in balance sheet (€bn)	30.5	29.8
Total capital as shown in balance sheet (€bn)	36.7	36.9

Regulatory key figures	30.6.2022	31.12.2021
Tier 1 capital ratio (%)	15.6	15.5
Common Equity Tier 1 ratio[4] (%)	13.7	13.6
Total capital ratio (%)	18.1	18.4
Leverage ratio (%)	4.6	5.2

Full-time personnel	30.6.2022	31.12.2021
Germany	26,454	28,734
Abroad	12,011	11,446
Total	38,465	40,181

Ratings[5]	30.6.2022	31.12.2021
Moody's Investors Service, New York[6]	A1/A2/P–1	A1/A1/P–1
S&P Global, New York[7]	A–/BBB+/A–2	A–/BBB+/A–2

[1] Insofar as attributable to Commerzbank shareholders.
[2] Annualised.
[3] Ratio of net income attributable to Commerzbank shareholders after deduction of the potential (completely discretionary) AT-1 Coupon and average IFRS equity before minority after deduction of goodwill and other intangible assets without additional equity components and non-controlling interests.
[4] The Common Equity Tier 1 ratio is the ratio of Common Equity Tier 1 capital (CET1) mainly subscribed capital, reserves and deduction items) to risk-weighted assets.
[5] Further information can be found online at www.commerzbank.com.
[6] Counterparty rating and deposit rating/issuer credit rating/short-term liabilities.
[7] Counterparty rating/deposit rating and issuer credit rating/short-term liabilities.

Due to rounding, numbers and percentages in this report may not add up precisely to the totals provided.

Contents

Performance highlights 1 January to 30 June 2022

Key statements

Commerzbank continued its upward trend in the first half of 2022, more than doubling its operating profit. Thanks to a strong customer business and rising interest rates, revenues significantly increased. The Bank reduced its operating costs as planned despite growing inflationary pressure and has been able to more than compensate for the significant increase in compulsory contributions. With its high portfolio quality, the comfortable capital base and the available top level adjustments the Bank is well equipped for future economic challenges. The key figures for the Bank's business performance in the first half of 2022 are shown below:

- Overall, Commerzbank posted an operating profit of €1,289m in the period under review, compared with €570m in the prior-year period.
- The Group risk result was €–570m, compared with €–235m in the prior-year period. The significant increase compared with the first half of 2021 was primarily attributable to the Russia-Ukraine war. Since the beginning of the Russian invasion of Ukraine, the Bank has reduced its Russian net exposure by around 45% to net €1.02 billion by mid-July 2022. The non-performing exposure (NPE) ratio was 0.8%.
- Operating expenses were reduced by a further 9.7% to €2,865m compared with the prior-year period. Compulsory contributions, which are reported separately, were 31.1% higher than in the previous year at €491m.
- The consolidated profit attributable to Commerzbank shareholders and investors in additional equity components was €768m, compared with a consolidated loss of €–394m in the prior-year period.
- The Common Equity Tier 1 (CET1) ratio was slightly above the level as at the end of 2021 at 13.7%, while the leverage ratio was 4.6%.
- The operating return on equity was 10.8%, compared with 4.8% in the prior-year period. The return on equity based on consolidated profit or loss (less intangible assets and AT-1-related items) was 5.4%, compared with –3.9% in the previous year. The cost/income ratio was 54.9% with compulsory contributions excluded and 64.3% including compulsory contributions. The corresponding figures for the previous year were 72.9% and 81.5% respectively.

Performance of the Commerzbank share

The international stock markets were influenced by the ongoing high level of uncertainty in the first six months of 2022. First and foremost, Russia's invasion of Ukraine affected the geopolitical situation and hence as well international trade relations with Russia. This had an impact on energy policy, leading to a significant increase in the cost of fossil fuels but also rising food prices. Western sanctions against Russia, the restriction of Russian gas supplies and a realignment of energy policy increased economic uncertainty, particularly among companies in energy-related sectors. The result was a significant rise in prices, which peaked at an inflation rate of 8.6% in Germany in the period under review and placed additional pressure on the European Central Bank (ECB) in carrying out its monetary policy objectives. Last but not least, growing inflationary and economic concerns coupled with ongoing interruptions to existing supply chains affected broad stock market indices worldwide. The threat of Russia shutting off the gas supply, and the associated dependency of German industry in particular, also contribute to the ongoing negative sentiment. On the currency markets, the euro depreciated significantly against the US dollar in the period under review, with the long-term nature of the trend borne out by the two currencies recently reaching parity. In conjunction with the current government crisis in Italy, the ECB in particular is coming under pressure to cap the higher yields on Italian government bonds.

The significant rise in bond yields in the first six months of the year, including those on ten-year German Bunds (up from −19 basis points at the start of the year to 133 basis points), reflects a considerably higher level of market interest rates that banks fundamentally benefit from. However, the ongoing coronavirus pandemic is damaging international supply chains, which are also being affected by the Russia-Ukraine conflict. One consequence of this is higher loan loss provisions at European banks.

The leading German index, the DAX, fell by 19.5% in the first six months of the year, while the EuroStoxx 50 fell by 19.8%. By way of comparison, the European banking index lost 20.3% since the beginning of the year. In contrast to the weak sentiment, the Commerzbank share price achieved a neutral performance over the first six months of the year. Higher income from the structurally improved interest rate environment, particularly in the Polish market, coupled with a sharp rise in eurozone interest rates that point to higher interest income in the coming years, supports the ongoing transformation. With the prospect of a resumption in dividends, meanwhile, Commerzbank is underlining its increasing ability to distribute dividends to its investors.

Highlights of the Commerzbank share	**1.1.–30.6.2022**	**1.1.–30.6.2021**
Shares issued in million units (30.6.)	1,252.4	1,252.4
Xetra intraday prices in €		
High	9.51	6.87
Low	5.17	4.70
Closing price (30.6.)	6.69	5.23
Daily trading volume[1] in million units		
High	23.9	25.5
Low	2.4	1.8
Average	8.9	7.1
Index weighting in % (30.6.)		
MDAX	3.5	1.4
EuroStoxx Banks	0.3	0.3
Earnings per share in €	0.46	−0.43
Book value per share[2] in € (30.6.)	21.09	19.97
Net asset value per share[3] in € (30.6.)	21.23	19.96
Market value/Net asset value (30.6.)	0.32	0.26

[1] Total for German stock exchanges.
[2] Excluding non-controlling interests.
[3] Excluding non-controlling interests and the cash flow hedge reserve and less goodwill.

Important staffing and business policy events after the end of the previous reporting period

Commerzbank establishes Sustainability Advisory Board

In May 2022, Commerzbank set up a Sustainability Advisory Board made up of external experts. This makes it one of the first major banks in Germany to have such a body. The new advisory board will help advance sustainability topics at Commerzbank and deliver outside impetus for the sustainable alignment of the Bank's activities. The new body includes representatives from business, politics, academia and society. It met for the first time in Frankfurt am Main on 23 May 2022. Going forward, the Sustainability Advisory Board is due to meet twice a year.

Commerzbank continues with sustainability dialogue

On 4 July 2022, Commerzbank held a second public Sustainability Dialogue event to provide information on the progress it has made with its sustainability strategy. Commerzbank has defined concrete CO_2 reduction targets for half of the loans it has granted. These are to be achieved by 2030. The Bank's efforts to manage climate risk are initially focused on CO_2-intensive sectors. For example, it has set reduction targets of at least 73% by 2030 for the power generation sector, and at least 57% for the significantly larger retail mortgage financing portfolio. Achieving these targets is a key intermediate step for the Bank in its drive to reduce the CO_2 emissions of its entire lending and investment portfolio to net zero by 2050 at the latest.

Making Commerzbank's understanding of sustainability transparent Commerzbank's new ESG framework, which is published on the website of Commerzbank Aktiengesellschaft, sets out which products are considered to be sustainable. The framework describes the criteria for sustainable lending and the reduction targets for CO_2-intensive sectors. It also takes social criteria into account and defines binding exclusion criteria. One example is the guideline for fossil fuels. The Bank expects customers who generate 20% or more of their sales or electricity production from coal to present a coal exit plan by 2025 at the latest. Commerzbank is thus helping to accelerate the shift away from coal by 2030.

The Bank's ESG framework gives its stakeholders the greatest possible degree of transparency. We are also creating a Bank-wide standard that will permit strict management of all of our ESG products, processes and activities. The document focuses on the Bank's core business, i.e. the customer and product portfolio. Thereby, Commerzbank makes a distinction between sustainable finance and transformation finance.

Sustainable finance relates to the portion of the portfolio that is already classified as sustainable. The Bank is to mobilise at least €300bn for sustainable products by 2025, a threefold increase compared with 2020. Transformation finance, meanwhile, relates to financing projects that do not meet the requirements for sustainable finance, but which even as normal financing transactions can foster the transformation of borrowers towards sustainability.

Portfolios are steered towards net zero under the SBTi Commerzbank has defined concrete CO_2 reduction targets for half of the lending volume it has granted to private and corporate customers. The Bank relies on the targets of the Science-based Target Initiative (SBTi) and is initially focusing on seven CO_2-intensive sectors such as power generation, commercial and private real estate, automotive manufacturing, iron and steel, cement and aviation. Achieving these reduction targets for 2030 is an important milestone for Commerzbank en route to becoming a net zero bank by 2050 at the latest. Commerzbank has set itself the goal of establishing clear CO_2 reduction targets for 70% of its lending portfolio by the autumn.

Commerzbank advises and supports corporate clients in their green transformation In the Corporate Clients segment, Commerzbank has made it a top priority to develop solutions that will enable customers to significantly reduce their CO_2 emissions. This includes direct access to energy transition projects. In June, Commerzbank signed a letter of intent with RWE to build an offshore wind farm with an output of around 1 gigawatt and to start operations by 2030 at the latest. As part of this project, Commerzbank will be setting up a Green Mittelstand Fund that will enable large industrial SMEs to obtain green electricity from offshore wind turbines. Thanks to the fund, these companies will for the first time have the opportunity to secure long-term purchase agreements for green electricity. This type of participation has to date been reserved for large-scale industrial companies only. Construction of the offshore wind farm is subject to RWE's bid for the project being accepted following the invitation to tender in 2023.

ESG loans reward corporate clients who meet targets early with interest rate cuts The Bank intends to double its credit exposure in renewable energy to €10bn by 2025. The Bank also expects significant growth in sustainable bonds and sustainability-linked loans. Since the beginning of this year, Commerzbank has offered a bilateral loan for which companies and Commerzbank define specific sustainability targets and timelines. If a borrower fails to meet the targets, the interest rate is raised until the agreed targets are met. However, the interest rate can of course also fall if the borrower achieves its ESG targets earlier than agreed. This creates a financial incentive to operate sustainably.

CO_2 reduction target for banking operations achieved early due to fewer business trips Commerzbank is also pursuing ambitious reduction plans in its own banking operations, which are expected to be net zero by 2040. For example, the Bank uses efficient facility management and artificial intelligence. By the end of 2021, CO_2 emissions had already fallen by 40% compared with 2018. However, the decline is largely due to the coronavirus pandemic and the lack of business travel. In view of this, Commerzbank expects to see a temporary increase in emissions and stands by its interim target of reducing CO_2 emissions by 30% by 2025.

Commerzbank issues its third own green bond

Commerzbank successfully issued a green bond with an issuance volume of €500m at the beginning of June 2022. Commerzbank will use the proceeds to finance renewable energy projects. Thanks to the progress made with renewable energy projects, a third own green bond has now been issued to follow those from 2018 and 2020. We are therefore responding to the still growing demand for sustainable investments and giving our investors the opportunity to participate in the transformation of the real economy towards greater sustainability.

Commerzbank allocated the non-preferred senior bond to loans for onshore and offshore wind projects and solar projects. The bond has a term of 5.25 years with a call date in September 2026 and a coupon of 3% per annum.

Commerzbank is an established player in the market for sustainable and green bonds. The Bank has a long and successful track record of supporting its customers in preparing sustainable bond issues and placing them in the international capital market. This year alone it has already helped with more than 20 green and social bond issues with a total volume of more than €20bn, following 57 issues with a total volume of €62.2bn in 2021.

Planned changes in the Board of Managing Directors of Commerzbank

At its meeting on 6 July 2022, the Supervisory Board of Commerzbank appointed Sabine Mlnarsky to the Bank's Board of Managing Directors with effect from 1 January 2023. She will assume responsibility for the Group Human Resources division. As Chief Human Resources Officer and Labour Relations Director she is succeeding Sabine Schmittroth, who in line with her personal life planning is leaving Commerzbank when her contract expires at the end of 2022. Sabine Mlnarsky has more than two decades of experience in the field of human resources and is joining Commerzbank from Austria's Erste Group Bank AG. The 47-year-old lawyer has been Head of Human Resources at the central institution of the Austrian savings bank sector since 2016.

At the meeting, Chief Risk Officer Marcus Chromik also informed the Supervisory Board that he intends to fulfil his management contract, which runs until the end of 2023, but in line with his personal life planning will not accept a possible offer of an extension to his contract. By informing the Supervisory Board at this early stage, we now have clarity and planning security for an orderly transition in this important function.

Further progress made with the implementation of the “Strategy 2024” programme
Commerzbank has also consistently progressed with its strategic initiatives. By the end of the year, the Bank intends to have largely contracted the necessary personnel reduction of 10,000 gross full-time equivalents. As of the end of June 2022, the reduction of 7,700 positions has already been locked in. In the optimisation of its branch network, as targeted in the Strategy 2024, Commerzbank had already reached its goal of 450 locations in Germany by the end of June 2022. In line with this, the set-up of the advisory centres is progressing at full speed. Having already introduced 3 pilot locations, the other locations will begin operating from mid-September 2022 onwards. The objective is to advise around 8 million private and small business customers from these centers by the end of the year 2022. Four international locations will be closed by the end of the year 2022.

The Bank is making good progress on its path to becoming the digital advisory bank for Germany. Its financial analysis service that is already widely used in the banking app, has been further enhanced and integrated into the Bank’s online banking offering. Moreover, the service “Financial Compass” was rolled out in the banking app. Customers can use it to keep track of their financial situation online and receive individual recommendations.

The Bank is on schedule in the development of the “Mittelstandsbank Direkt” for corporate clients. Since the second quarter, 3,000 clients are already being served here. A further 3,000 clients will follow over the course of the year 2022. With “Mittelstandsbank Direkt”, Commerzbank creates the first true direct bank for corporate clients in Germany. There has also been excellent progress in the simplification of the trading platform: the Bank has already decommissioned 56 of the 78 targeted applications.

Interim Management Report

Economic conditions

Overall economic situation

The outlook for the global economy has deteriorated significantly in recent months. The recovery in the eurozone economy that we expected following the lifting of coronavirus restrictions has failed to materialise. Russia's war in Ukraine has caused the first signs of a slowdown in Western economies, not least due to the major rise in energy costs. China has also seen repeated business shutdowns in key economic regions due to new coronavirus outbreaks. These have placed an additional burden on supply chains and driven costs even higher.

Consumer prices are now increasing across the board. The US Federal Reserve has stepped up the tempo of interest rate hikes to combat the high inflation, raising its key interest rate by 225 basis points since March 2022. The ECB also raised its key interest rate by 50 basis points in July 2022 and announced further rate rises.

Financial performance, assets, liabilities and financial position

For a description of the accounting and measurement methods applied as at 30 June 2022, see Note 4 to the interim financial statements.

Income statement of the Commerzbank Group

Despite charges in connection with the Russia-Ukraine war, Commerzbank recorded a consolidated profit of €768m in the first half of 2022, compared with a consolidated loss of €–394m in the prior-year period. The operating profit was €1,289m in the reporting period, compared with €570m in the prior-year period.

The main items in the income statement performed as follows in the reporting period:

Net interest income increased significantly by 18.6% to €2,879m in the period under review. The Private and Small-Business Customers segment recorded a marked increase in income that was driven primarily by the performance of mBank. Interest-bearing business in Germany also recorded a positive performance, however. Income grew in part due to a seasonal one-off effect arising from special repayments of mortgage loans. The corresponding counter-effect is included as fair value compensation payments in the net interest income of the Others and Consolidation division.

The significant rise in Poland's key interest rate since autumn 2021 was an especially positive factor in this, with deposit business therefore the main driver of the more than twofold increase in net interest income at mBank. Rising lending and deposit volumes also led to corresponding income growth. In Germany, the continued expansion of lending volumes, chiefly for private retail mortgage financing and personal loans, resulted in income growth. The turnaround in interest rates since the start of the year also generated additional income over and above the resulting increase in deposit income. Net interest income in the Corporate Clients segment was slightly higher than in the prior-year period, with the increase attributable in particular to a positive performance in SME business. The significant decrease in net interest income in the Others and Consolidation segment was mainly due to the decrease by €81m to €87m in additional income from the fulfilment of the credit volume requirements in connection with targeted longer-term refinancing operations (TLTROs) with the ECB compared with the corresponding prior-year period – among other things, because the previous year included additional amounts relating to the year 2020, since the fulfilment of the credit volume condition was not established until 2021 – and to internal fair value compensation payments for special repayments of mortgage loans to the Private and Small-Business Customers segment due to the rise in interest rates.

Net commission income was 3.6% higher than in the first six months of 2021 at €1,868m. In Germany, the Private and Small-Business Customers segment saw a noticeable drop in customer activity in securities business that was not fully offset by higher income from payment transactions in particular. An increase in income from payment transactions led to higher commission income at mBank. Net commission income in the Corporate Clients segment was around 10% higher than in the first half of 2021, mainly due to an increase in foreign currency and foreign exchange business.

Net income from financial assets and liabilities measured at fair value through profit or loss was €422m in the period under review, after €485m in the prior-year period. The 13.0% decline resulted primarily because of considerably higher positive remeasurement effects in the comparable period last year, including from equity holdings.

Other net income totalled €75m in the period under review, compared with €–335m a year earlier. While the negative result in the previous year was primarily attributable to allocations to provisions, reversals of provisions and income from exchange rate changes more than compensated provisions relating to mortgage loans in Swiss francs with index clauses at mBank amounting to €81m.

The risk result of €–570m was significantly higher than the prior-year figure of €–235m, with the increase primarily attributable to effects in connection with the Russia-Ukraine war. A TLA in the amount of €–334m was booked in this respect in the first quarter of 2022. The losses expected by the back office for exposures in Russia, Belarus and Ukraine were reviewed in the second quarter 2022. In addition, rating migrations and defaults on several large individual exposures were observed in this portfolio. The associated valuation allowances were mostly offset by utilisation of the recognised TLA. As at 30 June 2022 the total for the Russia TLA stood at €–178m.

Expected secondary effects from the coronavirus pandemic and the Russia-Ukraine war cannot be clearly attributed to one cause at a time and they weigh heavily on the macroeconomic outlook. The model-based parameters used to establish loan loss provisions do not yet fully reflect these effects. This requires recognition of a secondary effects TLA. The TLA amount was recalculated in the second quarter of 2022. This recalculation of the TLA ensures appropriate consideration of selected sectors of the economy impacted by secondary effects arising from the coronavirus pandemic or from the Russia-Ukraine war, such as disruption to supply chains and high energy prices. As at 30 June 2022 the total for the TLA for secondary effects stood at €–386m. On the other hand, the coronavirus TLA, which stood at €–523m as at 31 December 2021, was released or utilised in the first half of 2022. Further information on the TLAs can be found in the interim risk report on page 21 ff. The loan loss provisions required in the Private and Small-Business Customers segment for the first six months of 2022 increased – particularly at mBank – by €34m compared with the prior-year period, while the risk result in the Corporate Clients segment rose sharply by €299m due in particular to the Russia-Ukraine war.

Operating expenses were reduced by 9.7% compared with the prior-year period to €2,865m. Personnel expenses were down around 2% on the prior-year level at €1,684m, with the elimination of full-time positions more than offsetting cost-generating effects including higher accruals for variable remuneration. Administrative expenses, including depreciation on fixed assets and amortisation of other intangible assets, were reduced by 19.0% to €1,181m. The decrease was primarily attributable to a fall in IT expenses, as well as lower costs in connection with the streamlining of the branch network. In addition, the corresponding prior-year figure included a charge 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, resulting in a significant decline in amortisation expense.

Compulsory contributions, which are reported separately, rose sharply by €117m to €491m. The significant increase of 31.1% resulted in particular from a new mandatory levy by mBank for an enhancement to Poland’s deposit insurance scheme and the rise in the European banking levy due to higher contributions to the Single Resolution Fund of the Banking Union. In the period 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 in connection with the implementation of the “Strategy 2024” programme were €39m in the period under review, compared with €976m in the prior-year period.

The pre-tax profit was €1,250m, compared with a loss of €–406m in the prior-year period. Tax expenses of €425m were reported for the period under review. These resulted primarily from deferred tax expenses arising from the change in temporary differences and current tax expenses of the mBank subgroup for the period under review, offset by tax income from the recognition of deferred tax assets on tax loss carryforwards. The profit after tax was €825m, compared with a loss of €–363m in the prior-year period.

Net of non-controlling interests, a consolidated profit of €768m was attributable to Commerzbank shareholders and investors in additional equity components for the 2022 reporting period, compared with a consolidated loss of €–394m in the prior-year period.

Operating profit per share was €1.03 and earnings per share €0.46. The comparable figures in the prior-year period were €0.46 and€–0.43 respectively.

Balance sheet of the Commerzbank Group

Total assets of the Commerzbank Group as at 30 June 2022 were €535.0bn. This represented an increase of €62.0bn compared with the end of 2021.

Cash on hand and cash on demand rose by €55.2bn to €104.7bn. The strong growth on the 2021 year-end balance was attributable to an increase in deposits held with central banks due to inflows of liquidity.

Financial assets at amortised cost rose slightly by €5.4bn to €304.6bn compared with the end of 2021. While there was growth in both lending to private customers, particularly in retail mortgage financing and universal loans, as well as in lending to Mittelstand customers, modest declines in debt securities were recorded because of interest rates.

Financial assets in the fair value OCI category were €33.9bn, down €6.2bn compared with the end of 2021. The decrease of 15.4% resulted from a lower volume of debt securities in connection with liquidity management and from declines in holdings at mBank.

At €38.4bn, financial assets mandatorily measured at fair value through profit or loss were €10.0bn higher than at the end of the previous year. The increase was primarily attributable to an expansion of collateralised securities-repurchase agreements. In this regard, loans and claims on banks and financial service providers rose by €10.4bn in total.

Financial assets held for trading were €43.7bn at the reporting date, in line with the figure at the end of 2021. While positive fair values from interest-related products decreased by €5.8bn, positive fair values from currency-related products increased by €5.4bn. Securitised debt instruments rose slightly to €3.7bn compared with the end of 2021.

On the liabilities side, financial liabilities at amortised cost were up €50.6bn to €424.6bn compared with the end of the previous year. The increase versus year-end 2021 was attributable to a marked rise in deposits and other financial liabilities by €52.5bn, especially from corporate clients and banks. Bonds and notes issued fell by €1.8bn compared with the end of the previous year.

Financial liabilities under the fair value option, at €31.0bn, were up €11.3bn compared with the end of 2021. The increase was primarily attributable to a seasonal expansion of securities repurchase agreements.

Financial liabilities held for trading were €38.9bn, up €6.0bn compared with the end of 2021. The increase was due to the negative fair values of derivative financial instruments, especially currency-related derivative transactions, which rose by €5.3bn.

Provisions fell by €0.4bn compared with the end of the previous year to €3.4bn. The decline was mostly due to lower restructuring provisions under the “Strategy 2024” programme.

Equity

The equity capital attributable to Commerzbank shareholders reported in the balance sheet on 30 June 2022 was €26.4bn, up slightly by €0.7bn compared with year-end 2021. Further information on the change in equity can be found on page 43 ff.

Risk-weighted assets were €175.0bn as at 30 June 2022 and thus €0.1bn lower than at year-end 2021. The increase in risk-weighted assets from credit risk was mainly attributable to exchange rate and parameter effects (including Russia-related rating changes) and anticipation of the initial expected effects of model changes in connection with the IRB Repair programme set up by banking regulators. These increases in risk-weighted assets were partially offset, chiefly by effects arising from a new securitisation transaction at mBank and reductions in securities positions. The fall in market risk was due to position changes, while risk-weighted assets from operational risk remained unchanged compared to the end of 2021.

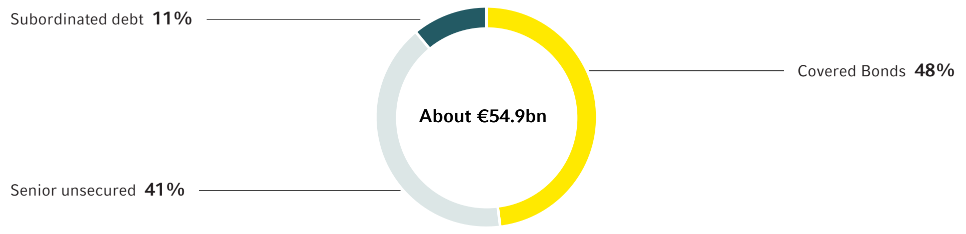
As at the reporting date, Common Equity Tier 1 (CET1) capital was €24.0bn, compared to €23.8bn at the end of 2021. The CET1 ratio was 13.7%, compared with 13.6% on 31 December 2021. The positive impact of the half-year result on CET1 capital was partially offset by higher regulatory capital deductions. The Tier 1 ratio was 15.6% as at the reporting date, compared with 15.5% as at the end of 2021. The changes in Tier 1 capital were mainly due to the fact that AT1 instruments could no longer be taken into account under the CRR transitional provisions. Tier 2 capital was reduced due to the cancellation of a Tier 2 bond and the elimination of Tier 2 instruments from temporary grandfathering. The total capital ratio was 18.1% as at the reporting date, compared with 18.4% as at the end of 2021 (with transitional provisions). Own funds decreased by €0.6bn year on year to €31.6bn as at 30 June 2022.

The leverage ratio, which is equal to Tier 1 capital divided by leverage ratio exposure, was 4.6%.

Funding and liquidity

The money and capital markets are still dominated by the Russia-Ukraine war, rising energy and commodity prices coupled with bottlenecks in these areas, and persistently high inflation. However, Commerzbank’s liquidity and solvency were assured at all times. Furthermore, the Bank’s liquidity management is always able to respond promptly to new market circumstances.

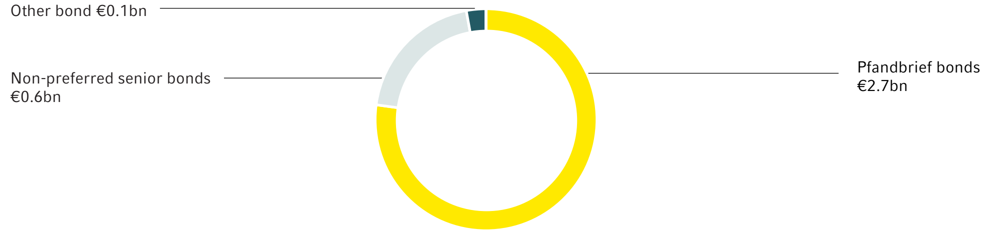
Capital market funding structure[1]
As at 30 June 2022



[1] Based on reported figures.

The Commerzbank Group raised a total of €3.5bn in long-term funding on the capital market in the first half of 2022. At the beginning of January 2022 Commerzbank Aktiengesellschaft issued a mortgage Pfandbrief with a volume of €1bn and a term of ten years. The re-offer spread was one basis point below the swap midpoint. This was followed in March 2022 by a five-year mortgage Pfandbrief for €1.5bn with a re-offer spread of four basis points above the swap midpoint. Both issues were heavily oversubscribed, with demand split roughly equally between domestic and foreign investors. Commerzbank issued its third own green bond with a volume of €500m in June. Commerzbank allocated the non-preferred senior bond to loans for onshore and offshore wind projects and solar projects. The issue was extremely popular with investors, with the final order book more than twice subscribed. The green bond was predominantly placed with investors who are focused on sustainability. The bond has a term of 5.25 years with a call date in September 2026 and a coupon of 3% per annum. Secured and unsecured private placements with a combined volume of around €340m were also issued. mBank issued a credit-linked notes securitisation with a volume of around €140m in March 2022.

Group capital market funding in the first six months of 2022
Volume €3.5bn



Another key element of funding is the ECB's targeted longer-term refinancing operations III (TLTRO III) programme, with Commerzbank's participation currently amounting to a total volume of €35.9bn.

After the ECB had already prepared the market for forthcoming changes in its monetary policy, the ECB Governing Council raised its key interest rate (main refinancing rate) in July 2022 for the first time since 2011.

As at the reporting date, the Bank had a liquidity reserve of €109.2bn 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 to 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 €7.1bn.

At 141.2% (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 reporting period was therefore comfortable given its conservative and forward-looking funding strategy and complied with internal limits and applicable regulatory requirements.

Segment performance

The comments on the segments' results for the first six months of 2022 are based on the segment structure described on pages 67 and 264 ff. of the Annual Report 2021.

More information can be found in the interim financial statements in Note 36.

Private and Small-Business Customers

€m	1.1.–30.6.2022	1.1.–30.6.2021[1]	Change in %/%-points
Income before risk result	3,011	2,458	22.5
Risk result	–160	–126	26.9
Operating expenses	1,653	1,717	–3.7
Compulsory contributions	314	227	38.4
Operating profit/loss	**884**	**388**	**.**
Average capital employed	6,744	5,994	12.5
Operating return on equity (%)	26.2	12.9	13.3
Cost/income ratio in operating business (%) – excl. compulsory contributions	54.9	69.9	–15.0
Cost/income ratio in operating business (%) – incl. compulsory contributions	65.3	79.1	–13.8

[1] Figures adjusted due to IFRS 8.29 (see Note 36 to the interim financial statements).

Despite the challenging operating environment, the Private and Small-Business Customers segment significantly improved both its profitability and cost efficiency in the first half of 2022 compared with the prior-year period. The operating profit more than doubled compared with the same period of the previous year, rising by €496m to €884m thanks to a marked rise in operating income and lower operating expenses. This was achieved despite an increase in compulsory contributions and a higher risk result.

Total segment income before risk result increased significantly by €553m to €3,011m in the period under review. Net interest income was by far the biggest contributor to this, rising by a material €563m to €1,793m year on year. The growth in income was primarily attributable to mBank. The significant rise in Poland's key interest rate since autumn 2021 was an especially positive factor in this, with deposit business therefore the main driver of the more than twofold increase in net interest income at mBank. Rising lending and deposit volumes also led to corresponding income growth. Interest-bearing business in Germany also recorded a positive performance. Income grew in part due to a seasonal one-off effect arising from special repayments of mortgage loans.

In Germany, the continued expansion of lending volumes, chiefly for private retail mortgage financing and personal loans, resulted in income growth. The turnaround in interest rates since the start of the year also generated additional income over and above the resulting increase in deposit income. At €1,230m, net commission income was on par with the previous year's figure. In Germany, there was a noticeable drop in customer activity in securities business that was not entirely offset by higher income from payment transactions in particular. An increase in income from payment transactions led to higher commission income at mBank.

Other income items totalled €–12m, compared with €1m in the previous year. The decrease was due to a lower fair value result and somewhat higher provisions for legal risks in connection with mortgage loans issued in Swiss francs with index clauses at mBank. The reversal of a provision in connection with the ruling of the Federal Court of Justice on price changes for private customers in the second quarter of 2022 had an opposite effect.

The risk result was €–160m in the first half of 2022, compared with €–126m a year earlier. The increase was largely attributable to higher charges at mBank resulting in particular from allocations for individual cases.

Operating expenses fell by €64m overall in the period under review to €1,653m. Significant cost reductions in Germany, reflecting the progress made with the transformation process, were offset by higher expenses at mBank, which resulted in particular from an increase in the number of employees and salary increases. The increase of €87m in compulsory contributions to €314m was primarily due to a new mandatory levy by mBank for an enhancement to Poland's deposit insurance scheme

Overall, the Private and Small-Business Customers segment posted a pre-tax profit of €884m in the period under review, compared with €388m in the previous year.

Corporate Clients

€m	1.1.–30.6.2022	1.1.–30.6.2021[1]	Change in %/%-points
Income before risk result	1,808	1,598	13.2
Risk result	–338	–39	.
Operating expenses	1,037	1,121	–7.5
Compulsory contributions	116	95	22.0
Operating profit/loss	**317**	**342**	**–7.2**
Average capital employed	9,991	10,119	–1.3
Operating return on equity (%)	6.4	6.8	–0.4
Cost/income ratio in operating business (%) - excl. compulsory contributions	57.3	70.2	–12.8
Cost/income ratio in operating business (%) - incl. compulsory contributions	63.8	76.1	–12.4

[1] Figures adjusted due to IFRS 8.29 (see Note 36 to the interim financial statements).

The performance of the Corporate Clients segment in the first half of the year was characterised by heightened uncertainty and a persistently challenging operating environment. In addition to economic dependencies and the repercussions of the coronavirus pandemic, significant increases in commodity and energy prices as a result of the Russia-Ukraine war dampened the wider economic outlook and posed renewed challenges for existing supply chains. Against the backdrop of a significant increase in the risk result compared with the previous year, due mainly to the war in Ukraine, the Corporate Clients segment posted an operating profit of €317m, compared with €342m in the prior-year period.

The Mittelstand division recorded positive income growth compared with the prior-year period. Cash Management in particular benefited from an increase in payment transaction income and higher deposit fees. Capital market business also profited from increased currency and commodity trading, while lending business recorded a largely stable performance. In the International Corporates division, higher income from transaction banking and capital market business offset the fall in income from lending business caused by the shift in strategy. The Institutionals division also posted a positive performance, with higher income from trade finance and cash management offsetting lower income from primary market activities in particular. The Others division, which chiefly includes hedging and remeasurement effects, recorded a rise in income year on year that was attributable to strong currency trading.

Income before risk result was €1,808m in the first six months of the year, €211m higher than in the prior-year period. At €913m, net interest income was up €73m on the prior-year level, while net commission income of €659m exceeded the prior-year level by €58m, mainly due to an increase in foreign currency and foreign exchange business.

Net income from financial assets and liabilities measured at fair value through profit or loss rose by €41m to €218m as a result of remeasurement effects.

The risk result in the first half of 2022 was €–338m, compared with €–39m a year earlier. The marked increase was primarily attributable to the Russia-Ukraine war.

Operating expenses were €1,037m, down €84m on the prior-year figure. The decline resulted from lower personnel and administrative expenses achieved through strict cost management. The reported compulsory contributions of €116m relate primarily to the European banking levy. Compulsory contributions of €95m were recorded in the previous year.

Overall, the segment posted a pre-tax profit of €317m, compared with €342m in the prior-year period.

Others and Consolidation

The Others and Consolidation segment contains 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 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 costs of staff, management and support functions, which are then 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 profit of €88m for the first half of 2022, compared with a loss of €–160m in the prior-year period.

The increase was primarily attributable to the elimination of the negative impact on earnings in the previous year resulting from the termination of the project to outsource securities settlement to HSBC Transaction Services GmbH, a net positive effect from the recognition and reversal of provisions, and lower net loan loss provisions for a residual portfolio in the dissolved Asset & Capital Recovery segment. These were offset by a reduction of €81m to €87m in additional income from the fulfilment of the credit volume requirements in connection with targeted longer-term refinancing operations (TLTROs) with the ECB – among other things, because the previous year included additional amounts relating to the year 2020, since the fulfilment of the credit volume condition was not established until 2021, lower positive net remeasurement effects and a lower positive Group Treasury result. The fall in the Group Treasury result was primarily attributable to internal fair value compensation payments for special repayments of mortgage loans to the Private and Small-Business Customers segment due to the rise in interest rates and was partially offset by higher income from the measurement of interest rate hedges in the commercial banking book compared with the previous year.

Others and Consolidation recorded a pre-tax profit of €49m for the first half of 2022. This figure included restructuring expenses of €39m relating primarily to property matters in connection with the implementation of the “Strategy 2024” programme.

Outlook and opportunities report

Future economic situation

We expect German economic growth to remain weak until the autumn. Incoming orders in industry, particularly from abroad, recently fell markedly for the third month in a row. In particular, demand in China – Germany’s biggest trading partner – has tailed off significantly due to a tighter monetary policy and multiple lockdowns due to the Chinese government’s zero-Covid policy.

Supply bottlenecks in most industrial sectors are also leading to a decline in orders for intermediate products.

Inflation in Western economies is unlikely to peak before the autumn. We now expect the US Federal Reserve to raise its key interest rate to 4.0% in response to the persistently high inflation, which could cause the US economy to slide into recession. This also poses a considerable risk for the eurozone economy, as does the reduction in Russian gas supplies. We are now expecting growth of just 2.8% in the eurozone and 1.5% in Germany for 2022. The ECB, which traditionally reacts very sensitively to a gloomier economic outlook, is likely to only raise its deposit rate to 1.5% by spring next year despite the higher inflation risks. All these forecasts are subject to Russia not completely suspending gas supplies. Were this to happen, the German economy would probably be plunged into a severe recession akin to the one that occurred after the financial crisis in 2009.

More inflation and higher US key interest rates suggest that the period of rising bond yields is not quite over. At the same time, it is becoming ever clearer that the USA is on the verge of a recession, which ultimately the US Federal Reserve is likely to respond to. Overall, there is likely to only be a small rise in the yield on ten-year German Bond. The euro/US dollar exchange rate is likely to continue to suffer in the short term as a result of special factors such as the war in Ukraine and the risk of Russia suspending gas supplies.

Future situation in the banking sector

Although our views regarding the expected development of the banking sector structurally and over the short and medium term are basically unchanged from the statements published in the Annual Report 2021, the situation has further deteriorated as a result of the war in Ukraine. In particular, the risks for the banking environment’s short-term prospects are still considered to be very high. With the cost of debt rising, banks must be braced for a significantly higher number of corporate and personal insolvencies over the coming months. The resulting need for value adjustments will affect both retail and corporate banking business.

One of the two key forecast risks over the next few months is that global Covid-19 infection rates cannot be effectively reduced due to the ongoing emergence of new virus variants. Further waves of infection and associated countermeasures, particularly in China, which has thus far been pursuing a rigid zero-Covid strategy, are therefore possible. The impact of the war in Ukraine is also almost impossible to assess, but has already led to a considerable increase in energy and commodity prices.

Western sanctions against Russia and any further increase in shortages of raw materials and energy will reinforce inflationary pressures and under certain circumstances even further exacerbate them, resulting in considerable uncertainty for the global economy as a whole. The European banking sector faces a significant burden in terms of its income expectations, risk provisioning and capital requirements. Volatilities in the valuation of assets on the financial markets are also significantly higher.

With the future course of the coronavirus pandemic still uncertain, and in view of the continuing war in Ukraine and the ongoing problems affecting energy and supply chains, over the coming months both industry and the trade and service sectors are likely to contribute much less to economic growth than was previously anticipated. German banks' net interest and commission income will be affected by the feared weakness of the export industry, which is so important for the country's economy. Business with corporate and small-business customers therefore remains under huge pressure. Business with retail customers is also being affected, as the sharp rise in inflation is having a marked impact on private consumption. Even the previously very robust demand for residential mortgages is likely to gradually tail off despite the lack of affordable housing, with the main dampening effect coming from higher mortgage interest rates. The sharp rise in mortgage interest rates means that some borrowers have already seen their monthly costs double compared with the start of the year.

The outlook with regard to banks' interest margins is considerably more favourable. The global interest rate markets are undergoing a fundamental regime change and moving away from the current low level of interest rates. More and more central banks are tightening their monetary policy due to the rapid pace of inflation. The prospect of prolonged low interest rates was previously seen as one of the key challenges for the banking sector. A marked increase in interest rates, including in Germany, will enable banks to improve their interest margins over the long term and thus also boost income across the entire financial sector.

Sustainability is also providing positive impetus for banking business. One key area of focus is the provision of financial support for the transition to tomorrow's low-carbon economy. For example, renewable energy projects can be funded through the issue of green bonds.

As a direct neighbour of Ukraine, Poland has been affected particularly badly by the war, with the adverse economic effects also likely to have a negative impact on the banking sector. Legal developments and their potential impact on mBank and its portfolio of loans issued in Swiss francs and other foreign currencies must also continue to be closely monitored.

The granting of variable-rate loans without a fixed guaranteed interest rate to private households is also set to have a major negative impact on income in the Polish banking sector. The high rate of inflation and the marked rise in key interest rates implemented by the National Bank of Poland means that many debtors are now having to pay significantly higher monthly instalments than they were even a short time ago. As a result, the Polish government is planning to top up an existing hardship fund for borrowers who have got into difficulty, funded through additional bank contributions. In July 2022, a law was passed on the so-called "Credit Holidays" instrument, which enables private borrowers to defer their monthly instalments for current mortgage loans up to eight times between now and the end of 2023 and thus extend the term of their loan.

Financial outlook for the Commerzbank Group

Planned funding measures

The funding plan for 2022 envisages a volume of around €7.5bn. 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), when refinancing Commerzbank can also issue secured funding instruments, in particular mortgage Pfandbriefe and public-sector Pfandbriefe. 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.

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. Around 40% of the investment for the current year relates to the restructuring of the business model and the digitalisation of retail banking business. The remaining funds will be invested in the further digitalisation of processes in corporate client business, the IT infrastructure and regulatory measures.

Anticipated liquidity trends

The short-term repo market in high-quality securities (high-quality liquid assets or HQLA) such as government bonds, agency securities (issued by quasi-governmental US issuers) and Pfandbriefe continues to play 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. In response to the changed conditions and ongoing inflation, in June the ECB decided to suspend the APP programme as of 1 July 2022. Principal payments on maturing securities will continue to be reinvested. Principal payments under the PEPP programme will also continue to be reinvested until at least the end of 2024. This should ensure that there is ample liquidity in the market while also preventing any negative impact on the appropriate monetary policy stance.

Collateral eligible for discounting at the central bank is still in demand due to the outstanding TLTRO volumes and the ECB's comprehensive securities holdings under the APP and PEPP programmes, meaning that the euro repo markets in HQLA will remain more expensive than the ECB deposit facility. Given the ongoing high demand, we still expect repos in HQLA to trade lower than the deposit facility. This will also be supported by the reinvestment of maturing securities from the ECB's programmes. 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 being influenced by the further course of the ECB's securities purchase programme and by inflation, as well as by supply bottlenecks, high energy costs and the continuing high level of surplus liquidity. Despite rising government debt, we expect German government bond yields to remain relatively low – by historical standards – even in the long-term segment, due mainly to the ongoing demand generated through reinvestment by the ECB.

Demand for returns among financial investors will also continue to be very strong, causing credit spreads to remain stable. Overall, however, we do not anticipate any liquidity shortfalls in connection with the Russia-Ukraine war.

Anticipated performance of the Commerzbank Group

In view of the good performance of earnings in the first six months of the current year, we expect operating income for the full year 2022 to be higher than in the previous year. Net Commission income should be at the level of the previous year and net interest income should be significantly higher as a result of rising interest rates.

As communicated in mid-July, the proceeds of mBank will be subject to the law ratified by the Polish legislature in mid-July 2022, which provides for deferrals of interest and repayment of private real estate financing. In the third quarter of 2022, the current figure was around €210m to €290m, with a corresponding impact on Commerzbank's operating result. The charge will largely be booked as negative income in other net income from financial instruments.

We will continue to pursue our strict cost management during the rest of the year and are therefore sticking to our operational cost targets for 2022 as a whole. The marked cost reductions of around €400m previously forecasted for the 2022 financial year will not be fully implemented due to the additional mandatory levy of €83m for an enhancement to Poland's deposit insurance scheme, which was booked in the second quarter of 2022. We are anticipating operating expenses (including compulsory contributions) of around €6.4bn for 2022 as a whole. Under the assumption of the use of TLAs, we expect a total annual charge of around €–700m for the risk result.

Overall, we continue to expect consolidated profit of more than €1bn for the full year 2022 and a CET-1 ratio of over 13% at the end of the year. The bank intends to propose a dividend for the 2022 financial year with a pay-out ratio of 30% based on the net result after deduction of the AT1 coupon payments.

This forecast is subject to there being no material increase in the provisions for mBank's Swiss franc loan portfolio and no significant deterioration of the economic environment, for instance due to a natural gas shortage.

Interim risk report

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

Interim Risk Report

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.

The risk management organisation comprises Group Credit Risk Management, Group Risk Control, Group Cyber Risk & Information Security as well as Group Big Data & Advanced Analytics.

The CRO also has 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.

Further details on the risk management organisation within Commerzbank can be found in the Group risk report 2021.

Risk-bearing capacity and stress testing

Risk-bearing capacity (RBC) analysis is a key part of overall bank management and Commerzbank's internal capital adequacy assessment process (ICAAP). The purpose is to ensure that sufficient capital is held at all times. In terms of economic approach, the risk-bearing capacity concept is based on a going concern approach in accordance with regulatory requirements.

Economic risk-bearing capacity is monitored and managed monthly at Group level. Economic risk-bearing capacity is deemed to be assured as long as the RBC ratio is higher than 100%. In the first half of 2022, the RBC ratio was consistently above 100% and stood at 179% as at 30 June 2022. The decrease in economically required capital for default risk compared with December 2021 was mainly attributable to the annual update of the credit risk model parameters. The increase in market risk reflects the heightened market volatility resulting from the war between Russia and Ukraine. The main drivers for the increase in economically required capital for operational risk are, in addition to the regular update to the internal and external loss database, the inclusion of the rise in inflation from the second quarter. The RBC ratio is still well above the minimum requirement.

Economic risk-bearing capacity is also assessed using macroeconomic stress scenarios. The scenarios are simulated quarterly at Group level with a time horizon of 12 months.

Risk-bearing capacity Group | €bn	30.6.2022	31.12.2021
Economic risk coverage potential	**22**	**22**
Economically required capital[1]	**12**	**12**
thereof for default risk	8	9
thereof for market risk[2]	4	3
thereof for operational risk	2	1
thereof diversification effects	−2	−2
RBC ratio (%)[3]	**179**	**176**

[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, for climate and environmental risks too.
[2] Including deposit model risk.
[3] RBC ratio = economic risk coverage potential/economically required capital (including risk buffer).

The outlook for the global economy has deteriorated significantly in recent months. The recovery in the eurozone economy that we expected following the lifting of coronavirus restrictions has failed to materialise. Since the beginning of the year, prices have increased markedly. Given the war in Ukraine, energy prices are likely to remain high for the time being.

With the future course of the coronavirus pandemic still uncertain, the Russia-Ukraine war and the ongoing problems affecting energy and supply chains, over the coming months both industry and the trade and service sectors are likely to contribute much less to economic growth than was previously anticipated.

If Russian gas supplies were to be stopped, rationing would probably be inevitable, which would affect industry in particular. In this case, the threat of a recession is the same as after the financial crisis.

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.

Commerzbank Group

Commerzbank focuses its business on two customer segments, “Private and Small-Business Customers” and “Corporate Clients”.

In the first half of 2022, a top-level adjustment (TLA) was booked and reported in the risk result for increased default risk as a result of the ongoing war between Russia and Ukraine, the resulting sanctions and the resulting restrictions. In addition, the portfolio of exposures in Russia, Belarus and Ukraine resulted in ratings migrations and defaults of several large individual cases.

Expected secondary effects from the coronavirus pandemic and the Russia-Ukraine war cannot be clearly attributed to one cause at a time and they weigh heavily on the macroeconomic outlook. This requires recognition of a secondary effects TLA. The TLA amount was recalculated in the second quarter of 2022. This recalculation of the TLA ensures appropriate consideration of selected sectors of the economy impacted by secondary effects arising from the coronavirus pandemic or from the Russia-Ukraine war, such as disruption to supply chains and high energy prices. On the other hand, the coronavirus TLA was released or utilised in the first half of 2022.

In the remaining risk figures, the expected uncertain development is currently primarily perceptible in the figures for Central and Eastern Europe, where the current situation is reflected in an increased expected loss and thus a higher risk density.

Credit risk parameters To manage and limit default risks in the Commerzbank Group, we use risk parameters including the following: exposure at default (EaD), hereinafter also referred to simply as exposure, loss at default (LaD), expected loss (EL), risk density (EL/EaD), credit value at risk (CVaR = economically required capital for credit risk with a confidence level of 99.90% and a holding period of one year), risk-weighted assets and “all-in” for bulk risks.

The credit risk parameters in the rating classes 1.0 to 5.8 were as follows as at 30 June 2022:

	30.6.2022				31.12.2021			
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	204	405	20	1,902	203	408	20	2,180
Corporate Clients	177	426	24	4,306	174	347	20	4,197
Others and Consolidation	93	103	11	1,445	93	114	12	2,141
Group	**475**	**933**	**20**	**7,654**	**470**	**869**	**18**	**8,518**

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 constitute the investment-grade area.

	30.6.2022					31.12.2021				
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	29	56	12	2	1	30	55	12	2	1
Corporate Clients	19	61	14	3	2	18	62	15	3	2
Others and Consolidation	61	36	3	0	0	49	47	3	0	0
Group	**31**	**54**	**11**	**2**	**1**	**29**	**56**	**11**	**2**	**1**

The regional breakdown of the exposure corresponds to the Bank's strategic direction and reflects the main areas of its global business activities. More than half of the Bank's exposure relates to Germany, almost a third to other countries in Europe, 9% to North America and 4% 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.

	30.6.2022			31.12.2021		
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	261	366	14	257	363	14
Western Europe	92	163	18	96	198	21
Central and Eastern Europe	49	297	60	55	222	40
North America	43	49	11	37	35	9
Asia	18	25	14	15	23	16
Other	11	32	28	11	28	27
Group	**475**	**933**	**20**	**470**	**869**	**18**

Risk result The risk result relating to the Group's lending business in the first half of 2022 amounted to €–570m (prior-year period: €–235m).

The following table shows the breakdown of the risk result by stage according to IFRS 9. In Note (26) of the interim financial statements (credit risks and credit losses) details regarding the stages can be found; in Note (8) (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.

	1.1.-30.6.2022				1.1.-30.6.2021			
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	–8	–13	–139	–160	–16	–16	–94	–126
Corporate Clients	4	–167	–175	–338	4	11	–55	–39
Others and Consolidation	3	56	–130	–72	6	1	–76	–70
Group	**–1**	**–125**	**–445**	**–570**	**–6**	**–4**	**–225**	**–235**

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

Compared to the first half of 2021 the risk result increased significantly and was impacted in particular by the Russia-Ukraine war. A TLA in the amount of €–334m was booked in this respect in the first quarter of 2022. The losses expected by the back office for exposures in Russia, Belarus and Ukraine were reviewed in the second quarter. In addition, rating migrations and defaults on several large individual exposures were observed in this portfolio. The associated valuation allowances were mostly offset by utilisation of the recognised TLA. As at 30 June 2022 the total for the Russia TLA stood at €–178m.

Expected secondary effects from the coronavirus pandemic and the Russia-Ukraine war cannot be clearly attributed to one cause at a time and they weigh heavily on the macroeconomic outlook. The model-based parameters used to establish loan loss provisions do not yet fully reflect these effects. This requires recognition of a secondary effects TLA. The TLA amount was recalculated in the second quarter of 2022. This recalculation of the TLA ensures appropriate consideration of selected sectors of the economy impacted by secondary effects arising from the coronavirus pandemic or from the Russia-Ukraine war, such as disruption to supply chains and high energy prices. As at 30 June 2022 the total for the TLA for secondary effects stood at €–386m. On the other hand, the coronavirus TLA, which stood at €–523m as at 31 December 2021, was released or utilised in the first half of 2022.

The adequacy of the two TLAs is reviewed on an ongoing basis. (Details on the background to and adjustment of the TLA can also be found in Note 26 of the interim 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.

Taking into account the TLAs recognised, we expect the risk result as at the end of 2022 to be around €–700m, provided there is no significant deterioration in the economic situation, for example due to further bottlenecks in gas supply.

In addition to the macroeconomic scenarios and scenario weightings factored into the calculation of the expected credit loss (ECL) as at 30 June 2022, as well as the TLAs included as at 30 June 2022, Commerzbank simulated in a scenario analysis the possible impact of credit rating downgrades that could follow from a rationing of gas supplies due to significant shortages of Russian gas or even a halt to gas deliveries, while at the same time assuming direct or indirect state support measures for potentially affected households and companies. The simulated scenario is based on the assumption of worsened economic forecasts for Germany's gross domestic product of –2.7% in 2022 and –1.1% in 2023, as well as unemployment rates of 6.6% in 2022 and 6.8% in 2023. The analysis shows an additional negative effect of €0.5bn to €0.6bn for this scenario. This effect, established using the methodology applied to the secondary effects TLA, is calculated as the additional TLA requirement to the TLAs included in the financial statements as at 30 June 2022, if such a scenario were to be assumed in the future.

Default portfolio The default portfolio grew by €691m in the first half of 2022 and stood at €4,846m. The increase resulted from defaults on individual exposures in the Corporate Clients segment and in the Others and Consolidation segment.

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.

	30.6.2022			31.12.2021		
Default portfolio Group | €m	**Loans**	**Securities**	**Total**	**Loans**	**Securities**	**Total**
Default portfolio	4,730	116	4,846	4,152	3	4,156
LLP[1]	2,112	20	2,132	2,055	0	2,055
Coverage ratio excluding collateral (%)[2]	45	17	44	49	–	49
Collateral	1,258	0	1,258	1,109	0	1,109
Coverage ratio including collateral (%)[2]	71	17	70	76	–	76
NPE ratio (%)[3]			0.8			0.9

[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.

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 brand 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 €104bn). We provide our small-business customers with credit mainly in the form of individual loans with a volume of €29bn. In addition, we meet our customers' day-to-day demand for credit with consumer loans (consumer and instalment loans and credit cards, to a total of €15bn). The portfolio's expansion in the first half of 2022 was largely due to residential mortgage loans.

Compared with December 2021, the risk density of the portfolio remained stable at 20 basis points.

	30.6.2022			31.12.2021		
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	102	12	83	108	13
Small-Business Customers	35	54	15	35	54	15
comdirect	2	6	25	2	5	24
Commerz Real	0	0	9	0	0	10
Private Banking	12	9	7	11	9	8
Wealth Management	28	26	9	26	25	10
mBank	44	209	48	45	207	46
PSBC	**204**	**405**	**20**	**203**	**408**	**20**

The risk result in the Private and Small-Business Customers segment was €–160m in the first half of 2022 (prior-year period: €–126m). The increase was largely due to higher charges at mBank.

mBank's loan loss provisions, at €–97m, were higher than the prior-year figure of €–83m and were partly the result of allocations for individual cases.

Rating migrations and defaults arising from secondary effects of the coronavirus pandemic and the Russia-Ukraine war are expected for the segment, which are currently not yet reflected in the model-based calculation of loan loss provisions and are therefore covered by the TLA. The secondary effects TLA covers expected charges, in particular as a result of rising energy costs, interrupted supply chains and a deterioration in the economic situation. Both the Private Customers portfolio and the Small-Business Customers portfolio are affected. As at 30 June 2022 the total for the TLA for secondary effects stood at €–101m. The segment was not impacted by the Russia TLA. The coronavirus-related TLA in place as at 31 December 2021, on the other hand, was released or utilised in the first half of 2022.

The default portfolio for the segment as at the reporting date stood at €1,827m and was therefore almost at the same level as in the previous year (31 December 2021: €1,846m).

	30.6.2022			31.12.2021		
Default portfolio PSBC | €m	**Loans**	**Securities**	**Total**	**Loans**	**Securities**	**Total**
Default portfolio	1,827	0	1,827	1,846	0	1,846
LLP	861	0	861	826	0	826
Coverage ratio excluding collateral (%)	47	–	47	45	–	45
Collateral	709	0	709	717	0	717
Coverage ratio including collateral (%)	86	–	86	84	–	84

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.

	30.6.2022			31.12.2021		
Credit risk parameters	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Mittelstand	78	167	21	77	158	20
International Corporates	63	167	27	60	120	20
Financial Institutions	22	73	33	21	47	23
Other	15	18	13	16	23	14
CC	**177**	**426**	**24**	**174**	**347**	**20**

The EaD of the Corporate Clients segment increased from €174bn to €177bn compared with 31 December of the previous year. The risk density likewise rose, going up from 20 basis points to 24 basis points.

For details of developments in the Financial Institutions portfolio, please see page 26.

The risk result for the Corporate Clients segment in the first half of 2022 was €–338m (prior-year period: €–39m) and in comparison to the previous year was heavily impacted by the Russia-Ukraine war.

As a direct consequence of the Russia-Ukraine war, rating migrations and defaults are expected for clients in Russia, Belarus and Ukraine in this segment. For the Corporate Clients segment as a whole, rating migrations and defaults from secondary effects of the coronavirus pandemic and Russia-Ukraine war are anticipated. As at 30 June 2022 the segment accounted for €–178m of the Russia TLA. The secondary effects TLA covers expected charges resulting in particular from rising energy costs, interrupted supply chains and a deterioration in the economic situation. To calculate the secondary effects TLA, the portfolio was reviewed on the basis of the macroeconomic scenario. The assumptions for sectors/sub-portfolios for which the indirect effects are to be expected were adjusted. Clients in the segment are impacted by increased energy prices, interrupted supply chains and a deterioration in the economic situation. Details on the background to and adjustment of the TLAs can also be found in Note 26 of the interim financial statements (credit risks and credit losses).

As at the end of the first half of 2022 the segment accounted for €–276m of the secondary effects TLA. The coronavirus-related TLA in place as at 31 December 2021, on the other hand, was released or utilised in the first half of 2022.

The default portfolio in the segment stood at €2,350m as at 30 June 2022 (31 December 2021: €2,096m). The change in the first half was attributable in particular to defaults on relatively large individual exposures relating to the Russia-Ukraine war.

	30.6.2022			31.12.2021		
Default portfolio CC | €m	**Loans**	**Securities**	**Total**	**Loans**	**Securities**	**Total**
Default portfolio	2,347	3	2,350	2,092	3	2,096
LLP	980	0	980	1,076	0	1,076
Coverage ratio excluding collateral (%)	42	–	42	51	–	51
Collateral	545	0	545	387	0	387
Coverage ratio including collateral (%)	65	–	65	70	–	70

The risk result in the Others and Consolidation segment was €–72m in the first half of 2022 (prior-year period: €–70m). The drivers of loan loss provisions were rating migrations and defaults on large individual exposures as a result of the Russia-Ukraine war, and the negative performance of an existing exposure that required an increase in the existing loan loss provisions. The Russia TLA of €–30m recognised in the first quarter of 2022 partially compensated for these defaults and was released as at 30 June 2022. Of the secondary effects TLA, €–9m is accounted for by this segment. The coronavirus-related TLA was released in the first half of 2022 (31 December 2021: €–5m).

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

Germany’s industrial sectors coped well overall with the impact of the coronavirus pandemic, helped by state lending and support programmes. However, the recovery is patchy and not all sectors have returned to pre-pandemic levels of revenue and income.

At present, the war in Ukraine as well as lockdowns in China are having an effect. Energy and raw material prices have risen significantly, while inflation has reached a level that few would have expected. As a result, an appreciable increase in interest rates has also been recorded. With continuing robust demand and short supplies, particularly as a result of disruptions to supply chains, companies are mostly able to pass on the increased costs to a broad extent. Disposable household income will shrink, depending partly on wage growth and energy prices, and this will dampen demand, with corresponding effects on corporate earnings.

Investments in environmental protection and carbon-neutral production will require considerable capital expenditure. Reducing dependencies and ensuring a stable supply chain will also create a cost burden. However, we regard our clients as being broadly well positioned in these respects.

Of crucial importance to the performance of the German economy going forward will be how the war between Russia and Ukraine develops and, in particular, whether and to what extent gas continues to be supplied from Russia. A sudden halt to gas supplies could have a considerable impact and bring major upheaval.

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

	30.6.2022[1]			31.12.2021		
Corporates portfolio by sector	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Consumption	15	30	21	16	38	24
Technology/Electrical industry	14	22	16	15	27	18
Energy supply/Waste management	14	28	21	22	51	23
Wholesale	12	29	23	13	37	27
Transport/Tourism	11	51	47	13	46	37
Automotive	11	34	32	10	30	30
Basic materials/Metals	10	43	43	10	25	24
Chemicals/Plastics	8	19	24	8	26	31
Services/Media	8	17	21	10	28	28
Mechanical engineering	8	15	19	7	19	25
Pharma/Healthcare	4	7	15	6	25	42
Construction	4	7	17	5	12	22
Other	30	84	28	5	3	6
Total	**149**	**387**	**26**	**141**	**367**	**26**

[1] The definition of the sectors was adjusted in January 2022, and the figures as at 30 June 2022 are therefore only to a limited extent comparable to those as at 31 December 2021.

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 (at present in particular Russia's invasion of Ukraine) and are responding with flexible portfolio management that is tailored to the individual situation of each country. That also applies to disruption that may still be caused by the coronavirus pandemic, changes in energy prices and energy supply, and the effects of rising inflation. All this impacts heavily on the operational environment of our correspondent banks, both in industrialised countries and in developing countries. Overall, our risk appetite is geared to keeping the portfolio as responsive as possible.

	30.6.2022			31.12.2021		
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	3	7	5	4	9
Western Europe	14	9	7	15	10	7
Central and Eastern Europe	2	41	244	2	9	44
North America	3	1	2	2	1	2
Asia	5	15	28	5	15	28
Other	6	21	34	6	18	31
Total	**34**	**90**	**26**	**35**	**56**	**16**

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 arising from global events such as recessions, embargoes and economic uncertainty caused by political events (at present in particular Russia's invasion of Ukraine) and are responding with flexible portfolio management that is tailored to the individual situation. That also applies to current issues such as changes in energy prices and energy supply as well as the effects of rising inflation. 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.

	30.6.2022			31.12.2021		
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	19	19	10	18	18	10
Western Europe	15	18	12	13	18	14
Central and Eastern Europe	2	17	85	2	14	75
North America	9	11	11	9	5	6
Asia	1	2	12	1	1	11
Other	1	3	35	1	3	39
Total	**47**	**69**	**15**	**44**	**60**	**14**

Originator positions

Commerzbank has in recent years securitised receivables from loans to the Bank's customers with a current volume of €10.8bn for capital management purposes (31 December 2021: €11.5bn).

As at the reporting date 30 June 2022, risk exposures with a value of €9.6bn were retained (31 December 2021: €9.8bn). By far the largest share of all positions was accounted for by €9.4bn (31 December 2021: €9.6bn) on senior tranches, which are almost entirely rated good to very good. In the second half of 2022 Commerzbank is planning to launch a synthetic transaction with a volume of €3.2bn based on corporate receivables.

		Commerzbank volume[1]			
Securitisation pool €bn	**Maturity**	**Senior**	**Mezzanine**	**First loss piece**	**Total volume**
Corporates	2025 - 2036	9.4	<0.1	0.1	10.8
Total 30.6.2022		**9.4**	**<0.1**	**0.1**	**10.8**
Total 31.12.2021		9.6	< 0.1	0.2	11.5

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 €0.1bn to €4.0bn in the first half of 2022.

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 conservatively in the internal liquidity risk model. 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 applying conservative discounts.

The other asset-backed exposures mainly comprise government-guaranteed asset-backed securities (ABS) held by Commerzbank Finance & Covered Bond S.A. and Commerzbank AG in Germany. In first half of 2022 the volume declined to €3.8bn (December 2021: €3.9bn), as did the risk values[1] at €3.8bn (December 2021: €3.9bn).

There are also investments in the Structured Credit area. The volume of new investments entered into since 2014 stood at €7.0bn (December 2021: €6.9bn). 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 30 June 2022, this portfolio solely contained AAA-rated CLO positions (also the case at the end of 2021). Remaining structured credit positions with a volume of €0.2bn were already in the portfolio prior to 2014 (December 2021: €0.2bn), while the risk values of these positions stood at €0.1bn (December 2021: €0.2bn).

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 generally reflected in the revaluation reserve or in hidden liabilities/reserves.

Risk management

A standardised value at risk model (historical simulation) incorporating all positions that are relevant for market risk is used for the internal management of market risk. For smaller entities of Commerzbank Group we use standardised approaches under partial use rules. VaR quantifies the potential loss from financial instruments due to changed market conditions over a predefined time horizon and with a specific probability. Further details on the methodology used are given in the Group risk report 2021.

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 standalone basis. In order to provide a consistent presentation in this report, all figures relating to the VaR are based on a confidence level of 99%, a holding period of one day, equally weighted market data and a 254 days' 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. They are not included in the regulatory VaR figures presented.

In the first half of 2022 the VaR remained stable at €7m.

VaR of portfolios in the trading book | €m	30.6.2022	31.12.2021
Minimum	6	3
Mean	8	7
Maximum	12	20
VaR at end of reporting period	**7**	**7**

The market risk profile is diversified across all asset classes.

VaR contribution by risk type in the trading book | €m	30.6.2022	31.12.2021
Credit spreads	1	1
Interest rates	3	2
Equities	0	0
FX	2	2
Commodities	2	2
Total	**7**	**7**

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 in the course of the year.

[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.

The market risk profile in stressed VaR is also diversified across all asset classes. The dominant asset classes are interest rates and commodities. The stressed VaR fell in the first half of 2022 from €39m to €26m. This decline resulted in particular from the reduction of positions in emissions certificates.

Stressed VaR contribution by risk type in the trading book | €m	**30.6.2022**	**31.12.2021**
Credit spreads	6	7
Interest rates	8	10
Equities	1	1
FX	4	5
Commodities	9	16
Total	**26**	**39**

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 €27m to €58m in the first half of 2022. 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 the first half of 2022 three negative clean P&L outliers and three negative dirty P&L outliers were measured. The P&L outliers were mainly caused by market movements in interest rates, foreign currencies and commodities.

It was verified 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. Events simulated in stress tests include all stock prices falling by 15%, a parallel shift in the yield curve or 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 €37m as at the end of the first half of 2022 (31 December 2021: €50m). The main reason for the decrease was the rise in the level of interest rates.

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 €2,206m as at 30 June 2022 (31 December 2021: €2,523m potential economic loss) was determined, and in the scenario −200 basis points a potential economic profit of €1,087m (31 December 2021: €746m 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) fell to €3.0m as at 30 June 2022 (31 December 2021: €7.3m) per basis point of falling interest rates due to position changes in Group Treasury and interest rate movements. Pension fund risk is also part of market risk in the banking book. Our pension fund portfolio comprises a well-diversified investment section and the 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

The 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.

Risk management

Commerzbank uses a wide range of tools to manage and monitor liquidity risks on the basis of its internal 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 is in permanent exchange with all major 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. 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. In addition, the Bank mitigates a concentration by continuously using broadly diversified sources of funding, particularly 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.

Quantification and stress testing

Commerzbank uses a wide range of tools to manage and monitor liquidity risks on the basis of its internal 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 requirements of 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 situation 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 additional 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 the first half of 2022, in the one-month and three-month periods, the combined stress scenario leaves net liquidity of €16.1bn and €15.0bn respectively.

Net liquidity in the stress scenario | €bn		30.6.2022	31.12.2021
Idiosyncratic scenario	1 month	24.0	20.8
	3 months	24.5	24.1
Market-wide scenario	1 month	23.2	24.1
	3 months	22.1	26.0
Combined scenario	1 month	16.1	12.8
	3 months	15.0	14.7

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 the first half of 2022, the Bank had highly liquid assets of €109.2bn. 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 always ensure solvency. 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 30 June 2022, the total value of this portfolio was €7.1bn (31 December 2021: €6.1bn).

The liquidity reserves in the form of highly liquid assets consist of the following three components:

Liquidity reserves from highly liquid assets | €bn	30.6.2022	31.12.2021
Highly liquid assets	109.2	60.0
of which level 1	101.7	56.3
of which level 2A	7.2	3.4
of which level 2B	0.3	0.3

Liquidity ratios

Throughout the first half of 2022, Commerzbank's internal liquidity 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 the first half of 2022, Commerzbank significantly exceeded the minimum ratio of 100% on every reporting date. As at the end of the first half of 2022, the average month-end value of the LCR over the last 12 months was 141.2% (as at the end of 2021: 145.1%).

The Bank has established corresponding limits and early warning indicators to ensure the LCR minimum requirements are met.

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 environment, social and governance (ESG) risk. 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 incorporated into the model for determining the economic capital required for operational risks.

Commerzbank takes an active approach to managing operational risk on the basis of a group-wide framework, aiming to systematically identify OpRisk profiles and risk concentrations and, at the same time, 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 operational risk management during the year (risk appetite/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. OpRisk loss events are also subject to ongoing analysis and ICS backtesting on an event-driven basis. 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 is measured using a dedicated internal model. Risk-weighted assets for operational risks on this basis amounted to €19.9bn at the end of the second quarter of 2022 (31 December 2021: €19.8bn). The economically required capital was €1.8bn (31 December 2021: €1.5bn). The internal model used for this is based on the advanced measurement approach previously in use and is continuously being developed.

The total charge at the end of the second quarter of 2022 for OpRisk events was approximately €64m (full year 2021: €1,136m). The events mainly related to losses in the "Products and business practices" category.

OpRisk events[1] | €m	30.6.2022	31.12.2021
Internal fraud	0	–1
External fraud	–4	35
Damage and IT failure	3	2
Products and business practices	57	738
Process related	7	352
HR related	2	9
Group	**64**	**1,136**

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

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. Details of legal, compliance, cyber and model risk are shown below. As regards all other risks, there were no significant changes in the first half of 2022 compared with the position reported in the Group risk report 2021.

Legal risk 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, the tax risks arising from this issue have thereby been adequately covered. 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 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 plaintiffs have lodged an appeal against the ruling of the court of first instance rejecting their claims.

Independently of this, numerous borrowers have also filed individual lawsuits for the same reasons. In addition to the class action, 15,701 other individual proceedings were pending as at 30 June 2022 (31 December 2021: 13,036).

As at 30 June 2022, there were 1,049 final rulings in individual proceedings against the subsidiary, of which 89 were decided in favour of the subsidiary and 960 were decided against the subsidiary. A total of 171 proceedings before courts of second instance are suspended because of legal issues that are being considered by the Polish Supreme Court and the European Court of Justice (ECJ).

A ruling by the Polish Supreme Court on loan agreements denominated in Swiss francs with index clauses was once again adjourned indefinitely in September 2021; 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.

In February 2022 central questions from Polish courts on the handling of loans with index clauses in proceedings against the subsidiary were once again referred to the ECJ for a preliminary ruling (C-138/22, C-139/22, C-140/22); the time period for the parties involved to issue their opinions has not yet elapsed. Other preliminary ruling proceedings on loans with indexation clauses are pending before the ECJ (C-80/21, C-81/21, C-82/21), two of which concern proceedings against the subsidiary. Rulings have not yet been issued.

In the second quarter of 2022 the subsidiary completed the second phase of a pilot project for settlement agreements; this phase covered around 1,500 agreements and concluded with an acceptance rate of about 12%.

Against the background of 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 30 June 2022, the portfolio of loans denominated in Swiss francs that have not been fully repaid had a carrying amount of 8.7bn Polish zloty; the portfolio that had already been repaid amounted to 6.9bn Polish zloty when it was disbursed. Overall, the Group recognised a provision of €940m for the risks arising from the matter, including potential settlement payments and the class action lawsuit (31 December 2021: €899m).

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 €215.7m.

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.

New legal provisions in Poland permit consumers, irrespective of their financial position, to defer their monthly instalment payments for current mortgage loans up to eight times until the end of 2023. The Bank anticipates that between 60% and 80% of borrowers expected to be eligible will make use of this option.

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.

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 34 regarding provisions and Note 35 regarding contingent liabilities and lending commitments in the interim financial statements.

Compliance risk 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 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.

On 13 April 2022 Commerzbank London received confirmation from the UK financial services supervisory authority, the Prudential Regulation Authority (PRA), that its application to be recognised as a "third-country branch" had been approved. This approval allows the Bank to continue operating as a branch of Commerzbank AG in the UK; it had been operating under the Temporary Permissions Regime (TPR) since 1 January 2021. The approval also means discontinuation of all voluntary restrictions on business, which were put in place during the review carried out in the branch by the "skilled person" appointed by the UK Financial Conduct Authority (FCA).

Cyber risk Cyber risk comprises risks with direct relevance to security and risks that lead to relevance to security (in each case, within 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 Group risk strategy and the cyber and information security strategy apply without limitation to cyber risk.

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 material risk relating to areas such as operational risk.

The main factor in the current cyber risk situation is the geopolitical tension surrounding the Ukraine war. The actual threat situation has so far been limited to cross-sector attacks by pro-Russian and pro-Ukrainian activists. Cyber attacks and sabotage campaigns by state actors have thus far been focused on Ukraine. Developments in the cyber context are observed on an ongoing basis at Commerzbank by an interdisciplinary task force (top management and specialists from GRM-CRIS and Group Technology Foundations – GS-TF).

In the context of the coronavirus pandemic there continue to be no new or extended methods of attack against the Bank and its employees. That also applies to the increased remote use of Bank resources, for instance in connection with split operations or working from home.

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. Commerzbank continues to observe the situation in order to be able to respond promptly to similar patterns of attack or new developments.

In the last two years 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 protective measures and incident management processes, the Bank will continue to be adequately protected against ransomware attacks.

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, and the war in Ukraine with its geopolitical consequences, pose 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.

Further risks Commerzbank branches, subsidiaries and customers have received increasing amounts of dangerous correspondence over the past several months. These letters have been combined with attempts at blackmail.

In order to cope with the corresponding extensive operational and investigative measures, a special organisational structure (BAO) called “Klammer” has been established at the Central Franconia Police Headquarters. Commerzbank is in constant contact with the police command of the “Klammer” BAO and is fully observing its recommendations, which have been developed based on an ongoing police risk assessment.

The coordinated police tactic of non-fulfilment and the procedure derived from the access concept resulted in protective measures involving a closely coordinated communication concept between the police, the public prosecutor’s office and Commerzbank. This press/public relations concept warned the general public, customers, employees and mailrooms and provided behavioural recommendations.

These measures are repeated on an ad hoc basis at short intervals in order to minimise risks.

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. Stress tests cannot offer a final estimate of the maximum loss should an extreme event occur.

Interim Financial Statements

Income statement

€m	Notes	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Interest income accounted for using the effective interest method	(6)	3,425	2,977	15.0
Interest income accounted for not using the effective interest method	(6)	770	641	20.2
Interest income	(6)	4,195	3,618	16.0
Interest expenses	(6)	1,316	1,191	10.5
Net interest income	(6)	2,879	2,427	18.6
Dividend income	(7)	7	7	3.4
Risk result	(8)	–570	–235	.
Commission income	(9)	2,193	2,121	3.4
Commission expenses	(9)	325	318	2.1
Net commission income	(9)	1,868	1,803	3.6
Net income from financial assets and liabilities measured at fair value through profit or loss	(10)	422	485	–13.0
Net income from hedge accounting	(11)	–41	–52	–20.4
Other sundry realised profit or loss from financial instruments		–11	33	.
Gain or loss on disposal of financial assets – Amortised cost		13	–17	.
Other net income from financial instruments	(12)	2	17	–87.8
Current net income from companies accounted for using the equity method		4	2	78.7
Other net income	(13)	75	–335	.
Operating expenses	(14)	2,865	3,173	–9.7
Compulsory contributions	(15)	491	375	31.1
Restructuring expenses	(16)	39	976	–96.0
Pre-tax profit or loss		**1,250**	**–406**	**.**
Taxes on income	(17)	425	–43	.
Consolidated profit or loss		**825**	**–363**	**.**
Consolidated profit or loss attributable to non-controlling interests		57	31	84.7
Consolidated profit or loss attributable to Commerzbank shareholders and investors in additional equity components		768	–394	.

€		1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Earnings per share	(18)	0.46	– 0.43	.

The earnings per share, calculated in accordance with IAS 33, are based on the consolidated profit or loss attributable to Commerzbank shareholders (see Note 18). No conversion or option rights were outstanding either in the previous or current financial year. The figure for diluted earnings per share was therefore identical to the undiluted figure.

Condensed statement of comprehensive income

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Consolidated profit or loss	**825**	**–363**	**.**
Change from remeasurement of defined benefit plans not recognised in income statement	176	682	–74.2
Change from remeasurement of equity instruments (FVOCIoR)			
Reclassified to retained earnings	–	–	.
Change in value not recognised in income statement	–	–	.
Change in own credit spreads (OCS) of liabilities FVO not recognised in income statement	202	–32	.
Change in revaluation of land and buildings not recognised in income statement	–	3	.
Items not recyclable through profit or loss	**378**	**653**	**– 42.1**
Change in revaluation of debt securities (FVOCImR)			
Reclassified to income statement	20	–41	.
Change in value not recognised in income statement	–463	–28	.
Change in cash flow hedge reserve			
Reclassified to income statement	1	1	–17.2
Change in value not recognised in income statement	–130	–52	.
Change in currency translation reserve			
Reclassified to income statement	–0	–	.
Change in value not recognised in income statement	189	140	35.2
Valuation effect from net investment hedge			
Reclassified to income statement	–	–	
Change in value not recognised in income statement	–4	–3	
Change from non-current assets held for sale and disposal groups			
Reclassified to income statement	–	–	.
Change in value not recognised in income statement	–	–	.
Change in companies accounted for using the equity method	–2	–1	.
Items recyclable through profit or loss	**– 389**	**16**	**.**
Other comprehensive income	–11	669	.
Total comprehensive income	**814**	**306**	**.**
Comprehensive income attributable to non-controlling interests	–33	11	.
Comprehensive income attributable to Commerzbank shareholders and investors in additional equity components	848	295	.

Balance sheet

Assets | €m	**Notes**	**30.6.2022**	**31.12.2021**	**Change in %**
Cash on hand and cash on demand		104,716	49,507	.
Financial assets – Amortised cost	(19)	304,604	299,181	1.8
of which: pledged as collateral		326	873	–62.7
Financial assets – Fair value OCI	(21)	33,940	40,115	–15.4
of which: pledged as collateral		2,266	3,645	–37.8
Financial assets – Mandatorily fair value P&L	(23)	38,439	28,432	35.2
of which: pledged as collateral		–	–	.
Financial assets – Held for trading	(24)	43,677	43,790	–0.3
of which: pledged as collateral		2,721	802	.
Value adjustment on portfolio fair value hedges		–2,733	508	.
Positive fair values of derivative hedging instruments		1,754	846	.
Holdings in companies accounted for using the equity method		177	175	1.5
Intangible assets	(30)	1,254	1,243	0.9
Fixed assets	(31)	2,712	2,881	–5.9
Investment properties		40	41	–1.4
Non-current assets held for sale and disposal groups		754	830	–9.1
Current tax assets		186	222	–16.4
Deferred tax assets		2,878	3,130	–8.0
Other assets	(32)	2,652	2,143	23.7
Total		**535,049**	**473,044**	**13.1**

Liabilities and equity | €m	**Notes**	**30.6.2022**	**31.12.2021**	**Change in %**
Financial liabilities – Amortised cost	(20)	424,605	373,976	13.5
Financial liabilities – Fair value option	(22)	30,990	19,735	57.0
Financial liabilities – Held for trading	(25)	38,909	32,957	18.1
Value adjustment on portfolio fair value hedges		–3,051	209	.
Negative fair values of derivative hedging instruments		4,139	6,816	–39.3
Provisions	(34)	3,369	3,752	–10.2
Current tax liabilities		559	549	1.7
Deferred tax liabilities		7	13	–44.2
Liabilities of disposal groups		586	730	–19.7
Other liabilities	(33)	4,473	4,478	–0.1
Equity		30,461	29,827	2.1
Subscribed capital		1,252	1,252	–
Capital reserve		10,075	10,075	–
Retained earnings		15,947	14,979	6.5
Other reserves (with recycling)		–867	–569	52.4
Equity attributable to Commerzbank shareholders		26,407	25,738	2.6
Additional equity components		3,114	3,114	–
Non-controlling interests		940	975	–3.6
Total		**535,049**	**473,044**	**13.1**

Statement of changes in equity

€m	Subscribed capital	Capital reserve	Retained earnings	Other reserves			Equity attributable to Commerzbank shareholders	Additional equity components[1]	Non-controlling interests	Equity
				Revaluation reserve	Cash flow hedge reserve	Currency translation reserve				
Equity as at 1.1.2022	**1,252**	**10,075**	**14,979**	**–86**	**–88**	**–396**	**25,738**	**3,114**	**975**	**29,827**
Total comprehensive income			1,146	–415	–87	204	848	–	–33	814
Consolidated profit or loss			768				768		57	825
Change in own credit spread (OCS) of liabilities FVO			202				202		–	202
Change from remeasurement of defined benefit plans			175				175		0	176
Change in revaluation of land and buildings not recognised in income statement							–		–	–
Change in measurement of equity instruments (FVOCIoR)							–		–	–
Change in revaluation of debt securities (FVOCImR)				–415			–415		–29	–443
Change in cash flow hedge reserve					–87		–87		–41	–129
Change in currency translation reserve						209	209		–21	189
Valuation effect from net investment hedge						–4	–4		–	–4
Change from non-current assets held for sale and disposal groups							–		–	–
Change in companies accounted for using the equity method						–2	–2		–	–2
Dividend paid on shares							–		–3	–3
Distributions to Additional Tier 1 instruments			–190				–190		–	–190
Changes in ownership interests			–1				–1		1	–
Other changes			14				14		0	14
Equity as at 30.6.2022	**1,252**	**10,075**	**15,947**	**–500**	**–175**	**–192**	**26,407**	**3,114**	**940**	**30,461**

[1] Includes the Additional Tier 1 bonds (AT1 bonds), which are unsecured subordinated bonds classified as equity under IFRS. There were no repurchases.

€m	Subscribed capital	Capital reserve	Retained earnings	Other reserves			Equity attribute-able to Commerz-bank share-holders	Additio-nal equity compo-nents[1]	Non-con-trolling interests	Equity
				Revalu ation reserve	Cash flow hedge reserve	Currency translation reserve				
Equity as at 1.1.2021	**1,252**	**11,484**	**12,576**	**96**	**42**	**–614**	**24,836**	**2,619**	**1,119**	**28,574**
Total comprehensive income	–	–	258	–56	–34	127	295	–	11	306
Consolidated profit or loss	–	–	–394	–	–	–	–394	–	31	–363
Change in own credit spread (OCS) of liabilities FVO			–32				–32		–	–32
Change from remeasurement of defined benefit plans			682				682		–	682
Change in revaluation of land and buildings not recognised in income statement			2				2		1	3
Change in measurement of equity instruments (FVOCIoR)							–		–	–
Change in revaluation of debt securities (FVOCImR)				–56			–56		–14	–70
Change in cash flow hedge reserve					–34		–34		–17	–50
Change in currency translation reserve						130	130		10	140
Valuation effect from net investment hedge						–3	–3		–	–3
Change from non-current assets held for sale and disposal groups							–		–	–
Change in companies accounted for using the equity method						–1	–1		–	–1
Dividend paid on shares							–		–1	–1
Distributions to Additional Tier 1 instruments			–140				–140		–	–140
Changes in ownership interests							–		–	–
Other changes			14				14	496	0	510
Equity as at 30.6.2021	**1,252**	**11,484**	**12,708**	**40**	**9**	**–488**	**25,005**	**3,114**	**1,129**	**29,249**

[1] Includes the Additional Tier 1 bonds (AT1 bonds), which are unsecured subordinated bonds classified as equity under IFRS. There were no repurchases.

AT1 bond

The third AT1 bond under the issuance programme was successfully issued in the second quarter of 2021. The bond has a volume of €500m and a fixed coupon of 4.25% per annum. The instrument has a perpetual maturity and the first call date is in the period from October 2027 to April 2028.

Other changes

For the business year 2021, no dividend was payed.

As at 30 June 2022, there was no material impact on "Other reserves" from assets held for sale and disposal groups.

The main changes in the currency translation reserve in the current financial year were due to the US dollar, Polish zloty, British pound and Russian rouble.

In addition to the last years issued AT1 bond, the other changes include also changes from taxes not recognised in the income statement.

Cash flow statement (condensed version)

€m	2022	2021	Change in %
Cash and cash equivalents as at 1.1.	**49,507**	**75,603**	**–34.5**
Net cash from operating activities	55,437	31,621	75.3
Net cash from investing activities	–278	–247	12.5
Net cash from financing activities	–573	–1,019	–43.8
Total net cash	**54,586**	**30,355**	**79.8**
Effects from exchange rate changes	622	116	.
Cash and cash equivalents as at 30.6.	**104,716**	**106,075**	**–1.3**

With regard to the Commerzbank Group, the cash flow statement is not very informative. The cash flow statement neither replaces the liquidity/financial planning for us, nor is it used as a management tool.

Selected notes

General information

(1) Accounting policies

The Commerzbank Group has its headquarters in Frankfurt/Main, Germany. The parent company is Commerzbank Aktiengesellschaft, which is registered in the Commercial Register at the District Court of Frankfurt/Main under registration no. HRB 32000. Our interim financial statements as at 30 June 2022 were prepared in accordance with Art. 315e of the German Commercial Code (Handelsgesetzbuch, or “HGB”) and Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of 19 July 2002 (the IAS Regulation). In addition, other regulations for adopting certain international accounting standards on the basis of the International Financial Reporting Standards (IFRS) approved and published by the International Accounting Standards Board (IASB) and their interpretation by the IFRS Interpretations Committee have also been applied. This Interim Report takes particular account of the requirements of IAS 34 relating to interim financial reporting.

All standards and interpretations that are mandatory within the EU in the 2022 financial year have been applied. We have not applied standards and interpretations that are not required until the 2023 financial year or later.

The interim management report, including the separate interim risk report pursuant to Art. 315 of the German Commercial Code, is published on pages 9 to 37 of this Interim Report.

Uniform accounting and measurement methods are used throughout the Commerzbank Group in preparing the financial statements. For fully consolidated companies and holdings in companies accounted for using the equity method we have generally used financial statements prepared as at 30 June 2022.

The Group financial statements are prepared in euros, the reporting currency of the Group. Unless otherwise indicated, all amounts are shown in millions of euros. All items under €500,000.00 are presented as €0.00, and zero items are denoted by a dash. Due to rounding, in some cases the individual figures presented may not add up precisely to the totals provided.

Please refer to the Annual Report 2021 for general explanations and descriptions of the individual items in the income statement and balance sheet.

(2) New and revised standards and interpretations

There were no new or amended standards of material significance for the Commerzbank Group in the first half of 2022. Please refer to page 158 ff. of our Annual Report 2021 for further information on new and amended standards.

(3) Report on events after the reporting period

On 15 July 2022, our subsidiary mBank in Poland announced that, it expects negative income in the amount of 1.0 to 1.4bn Polish zlotys in the third quarter of 2022. This is due to the newly ratified law on 14. July 2022, that enables interest and repayment deferrals for private real estate financing (credit holidays). That currently translates to around €210 to 290m, which will negatively impact Commerzbank’s operating profit in the third quarter of 2022.

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Accounting and measurement policies

(4) Changes in accounting and measurement policies

In this interim report, we apply the same accounting and measurement policies and consolidation policies as in our consolidated financial statements as at 31 December 2021 (see Annual Report 2021, page 161 f.).

(5) Consolidated companies

In the first half-year of 2022, no material companies were newly included in the scope of consolidated companies. In addition, no material companies were sold or liquidated or are no longer consolidated for other reasons.

Notes to the income statement

(6) Net interest income

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Interest income accounted for using the effective interest method	**3,425**	**2,977**	**15.0**
Interest income – Amortised cost	3,250	2,801	16.0
Interest income from lending and money market transactions	2,855	2,434	17.3
Interest income from the securities portfolio	395	367	7.8
Interest income – Fair value OCI	152	106	43.2
Interest income from lending and money market transactions	3	3	–16.8
Interest income from the securities portfolio	149	102	45.2
Prepayment penalty fees	23	71	–67.5
Interest income accounted for not using the effective interest method	**770**	**641**	**20.2**
Interest income – Mandatorily fair value P&L	153	67	.
Interest income from lending and money market transactions	122	46	.
Interest income from the securities portfolio	31	20	49.9
Positive interest from financial instruments held as liabilities	617	574	7.5
Interest expenses	**1,316**	**1,191**	**10.5**
Interest expenses – Amortised cost	856	775	10.4
Deposits	516	441	17.0
Debt securities issued	339	333	1.8
Interest expenses – Fair value option	91	55	65.2
Deposits	59	27	.
Debt securities issued	32	28	12.0
Negative interest from financial instruments held as assets	315	303	3.8
Interest expenses on lease liabilities	9	8	18.7
Other interest expenses	45	50	–9.6
Total	**2,879**	**2,427**	**18.6**

(7) Dividend income

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Dividends from equity instruments – Fair value OCI	–	–	.
Dividends from equity instruments – Mandatorily fair value P&L	7	5	37.8
Current net income from non-consolidated subsidiaries	0	2	–79.1
Total	**7**	**7**	**3.4**

(8) Risk result

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Financial assets – Amortised cost	–550	–220	.
Financial assets – Fair value OCI	–18	8	.
Financial guarantees	0	–2	.
Lending commitments and indemnity agreements	–3	–21	–87.7
Total	**–570**	**–235**	**.**

The risk result contains changes to provisions recognised in the income statement for on- and off-balance-sheet financial instruments for which the IFRS 9 impairment model is to be applied. This also includes reversals of loss provisions when derecognition occurs because of scheduled redemptions, write-ups and amounts recovered on claims written-down and direct write-downs not resulting from a substantial modification. In addition, changes to provisions recognised in the income statement for certain off-balance-sheet items that are not financial guarantees as defined in IFRS 9 (certain guarantees, letters of credit, see Note 35) are taken into account.

For information on the organisation of risk management and on the relevant key figures, for additional analyses and explanatory material on the expected credit loss and for information on the top-level adjustment, please refer to the interim management report on page 9 ff. and to Note 26.

Commerzbank recognised a TLA for the direct effects of the Russia-Ukraine war (“Russia TLA”) in the first half of 2022. In addition, Commerzbank established a further so-called “secondary effects TLA” for the secondary effects resulting from the coronavirus pandemic and the Russia-Ukraine war. In the first half of 2022 the Bank allocated €–178m to the Russia TLA and €–386m to the secondary effects TLA. In contrast, the coronavirus TLA, which stood at €523m as at 31 December 2021, was released or utilised in the first half of 2022.

(9) Net commission income

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Commission income	**2,193**	**2,121**	**3.4**
Securities transactions	658	726	– 9.4
Asset management	195	173	13.1
Payment transactions and foreign business	841	702	19.7
Guarantees	123	120	2.5
Syndicated business	95	120	– 20.7
Intermediary business	84	93	– 9.5
Fiduciary transactions	33	23	43.4
Other income	164	164	– 0.1
Commission expenses	**325**	**318**	**2.1**
Securities transactions	80	84	– 4.9
Asset management	19	17	13.0
Payment transactions and foreign business	95	75	27.3
Guarantees	12	29	– 57.7
Syndicated business	0	0	– 30.3
Intermediary business	70	65	7.6
Fiduciary transactions	26	17	55.6
Other expenses	22	32	– 29.9
Net commission income	**1,868**	**1,803**	**3.6**
Securities transactions	578	642	– 10.0
Asset management	176	156	13.1
Payment transactions and foreign business	746	628	18.8
Guarantees	111	91	21.5
Syndicated business	95	120	– 20.7
Intermediary business	14	28	– 49.2
Fiduciary transactions	6	6	8.5
Other income	142	132	7.0
Total	**1,868**	**1,803**	**3.6**

The breakdown of commission income into segments by type of services based on IFRS 15 is as follows:

1.1.-30.6.2022 €m	Private and Small-Business Customers	Corporate Clients	Others and Consolidation	Group
Securities transactions	653	15	–11	658
Asset management	193	2	0	195
Payment transactions and foreign business	378	470	–7	841
Guarantees	14	126	–17	123
Syndicated business	0	95	0	95
Intermediary business	81	24	–21	84
Fiduciary transactions	29	4	0	33
Other income	145	28	–9	164
Total	**1,493**	**765**	**–65**	**2,193**

1.1.-30.6.2021 €m	Private and Small-Business Customers	Corporate Clients	Others and Consolidation	Group
Securities transactions	715	22	–11	726
Asset management	171	2	0	173
Payment transactions and foreign business	317	392	–7	702
Guarantees	14	108	–1	120
Syndicated business	1	119	0	120
Intermediary business	90	20	–17	93
Fiduciary transactions	19	4	0	23
Other income	137	52	–26	164
Total	**1,464**	**719**	**–61**	**2,121**

(10) Net income from financial assets and liabilities measured at fair value through profit or loss

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Profit or loss from financial instruments – Held for trading	215	289	–25.7
Profit or loss from financial instruments – Fair value option	326	62	.
Profit or loss from financial instruments – Mandatorily fair value P&L	–119	133	.
Total	**422**	**485**	**–13.0**

(11) Net income from hedge accounting

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Fair value hedges			
Changes in fair value attributable to hedging instruments	1,920	945	.
Micro fair value hedges	1,891	379	.
Portfolio fair value hedges	29	566	–94.9
Changes in fair value attributable to hedged items	–1,962	–996	96.9
Micro fair value hedges	–2,003	–425	.
Portfolio fair value hedges	41	–571	.
Cash flow hedges			
Gain or loss from effectively hedged cash flow hedges (ineffective part only)	1	–0	.
Net investment hedges			
Gain or loss from effectively hedged net investment hedges (ineffective part only)	–	–	.
Total	**–41**	**–52**	**–20.4**

(12) Other net income from financial instruments

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Other sundry realised profit or loss from financial instruments	–11	33	.
Realised profit or loss from financial assets – Fair Value OCI	–20	41	.
Realised profit or loss from financial liabilities – Amortised Cost	10	–5	.
Gain or loss on non-substantial modifications – Amortised Cost	–1	–2	–45.4
Gain or loss on non-substantial modifications – Fair Value OCI	–	–	.
Changes in uncertainties in estimates – Amortised Cost	–0	–0	–34.3
Changes in uncertainties in estimates – Fair Value OCI	–	–	.
Gain or loss on disposal of financial instruments (AC portfolios)	13	–17	.
Gains on disposal of financial instruments (AC portfolios)	18	1	.
Losses on disposal of financial instruments (AC portfolios)	5	18	–72.8
Total	**2**	**17**	**–87.8**

(13) Other net income

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Other material items of income	**435**	**215**	**.**
Reversals of provisions	72	12	.
Operating lease income	72	69	5.3
Hire-purchase income and sublease income	8	8	1.4
Income from investment properties	0	0	.
Income from non-current assets held for sale	–	–	.
Income from disposal of fixed assets	20	1	.
Income from FX rate differences	142	86	63.7
Remaining other income	121	39	.
Other material items of expense	**342**	**530**	**–35.5**
Allocations to provisions	48	170	–71.6
Operating lease expenses	50	53	–4.1
Hire-purchase expenses and sublease expenses	1	1	23.4
Expenses from investment properties	1	0	.
Expenses from non-current assets held for sale	–	–	.
Expenses from disposal of fixed assets	1	1	–0.3
Expenses from FX rate differences	131	79	64.4
Remaining other expenses	110	226	–51.5
Other tax (netted)	–21	–20	5.8
Realised profit or loss and net remeasurement gain or loss from associated companies and jointly controlled entities (netted)	4	–	.
Other net income	**75**	**–335**	**.**

(14) Operating expenses

Personnel expenses | €m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Wages and salaries	1,553	1,566	–0.9
Expenses for pensions and similar employee benefits	131	150	–12.6
Total	**1,684**	**1,716**	**–1.9**

Administrative expenses | €m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Occupancy expenses	127	122	4.0
IT expenses	275	293	–6.3
Workplace and information expenses	103	113	–8.9
Advisory, audit and other expenses required to comply with company law	94	106	–10.8
Travel, representation and advertising expenses	71	65	7.9
Personnel-related administrative expenses	41	35	18.4
Other administrative expenses	60	79	–24.8
Total	**771**	**814**	**–5.3**

Depreciation and amortisation | €m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Office furniture and equipment	46	52	–11.1
Land and buildings	4	5	–22.2
Intangible assets	208	420	–50.6
Right of use assets	152	166	–8.4
Total	**410**	**643**	**–36.3**

In the financial year 2021, amortisation of intangible assets includes a derecognition of assets totalling €200m. The reason for the derecognition is Commerzbank's decision to terminate the project to outsource securities settlement to HSBC Transaction Services GmbH.

(15) Compulsory contributions

Compulsory contributions | €m	1.1-30.6.2022	1.1-30.6.2021	Change in %
Deposit Protection Fund	143	92	56.1
Polish bank tax	70	63	11.4
European bank levy	278	220	26.4
Total	**491**	**375**	**31.1**

(16) Restructuring expenses

€m	1.1.-30.6.2022	1.1.-30.6.2021	Change in %
Expenses for restructuring measures in progress	39	976	–96.0
Total	**39**	**976**	**–96.0**

The restructuring expenses of the first halfyear 2021 resulted mainly from the recognition of restructuring provisions for personnel measures in Germany and abroad. The Board of Managing Directors reached an agreement with the Central Works Council in the first quarter of 2021 on the implementation of an early voluntary programme to reduce around 1,700 full-time positions at Commerzbank AG in Germany in connection with Strategy 2024.

At the beginning of May 2021, the Bank reached an agreement with the employee representative committees on a framework reconciliation of interests for the implementation of the Strategy 2024 programme.

(17) Taxes on income

Group tax expense was €425m as at 30 June 2022 (prior-year period: €–43m). With pre-tax profit of €1,250m (prior-year period: €–406m) the Group's effective tax rate was 34.0% (prior-year period: 10.5%) (Group income tax rate: 31.5%, previous year:31.5%).

The Group tax expense for the current financial year 2022 is mainly rebased on deferred tax expense arising from the change in temporary differences, from the ongoing tax burden of the mBank subgroup for the reporting period and inversly from deferred tax income from the capitalization of deferred tax assets on tax loss carryforwards. In the previous year, the low tax rate as at the second quarter was primarily attributable to tax expenses relating to other periods resulting from the recognition of additional provisions for tax risks.

(18) Earnings per share

€	30.6.2022	30.6.2021	Change in %
Operating profit (€m)	1,289	570	.
Consolidated profit or loss attributable to Commerzbank shareholders and investors in additional equity components (€m)	768	–394	.
Dividend on additional equity components (€m)	190	140	36.3
Consolidated profit or loss attributable to Commerzbank shareholders (€m)	578	–533	.
Average number of ordinary shares issued	1,252,357,634	1,252,357,634	–
Operating profit per share (€)	1.03	0.46	.
Earnings per share (€)	0.46	–0.43	.

Earnings per share, calculated in accordance with IAS 33, are based on the consolidated profit or loss attributable to Commerzbank shareholders and are calculated by dividing the consolidated profit or loss by the weighted average number of shares outstanding during the financial year. As in the previous year, no conversion or option rights were outstanding in the reporting year. The figure for diluted earnings per share was therefore identical to the undiluted figure. The breakdown of operating profit is set out in the segment report (see Note 36).

Notes to the balance sheet

Financial assets and liabilities

(19) Financial assets – Amortised cost

€m	30.6.2022	31.12.2021	Change in %
Loans and advances	273,445	265 006	3.2
Debt securities	31,158	34 175	–8.8
Total	**304,604**	**299 181**	**1.8**

(20) Financial liabilities – Amortised cost

€m	30.6.2022	31.12.2021	Change in %
Deposits	387,082	334,625	15.7
Debt securities issued	37,523	39,352	–4.6
Money market instruments	67	65	2.4
Pfandbriefe	17,357	17,300	0.3
Other debt securities issued	20,099	21,986	–8.6
Total	**424,605**	**373,976**	**13.5**

New issues with a total volume of €3.1bn were issued in the first six months of 2021 (prior-year period: €0.8bn). In the same period, the volume of bonds maturing amounted to €2.7bn (prior-year period: €3.5bn). An issue with a nominal volume of €0.1bn that was ineligible due to regulatory provisions was repurchased in the current financial year. There were no other redemptions beyond that, including in the prior-year period.

Commerzbank has been participating in the ECB's third programme of targeted longer-term refinancing operations (TLTRO III) since 2020. The interest rate depends on the development of the credit volume in a benchmark portfolio, which, if a threshold has been reached, results in a discount on the rate. Commerzbank reached the threshold in 2021 and utilised the interest rate discounts.

Interest income is essentially recognised in net interest income on a pro rata basis with a corresponding reduction of the refinancing liability. So far in the current 2022 financial year, total interest income in the amount of €178m (prior-year period: €254m) has been recognised, of which €87m (prior-year period: €168m) relates to additional interest rate discounts stemming from meeting the total lending requirement. The prior year also included amounts relating to 2020 that were only known in 2021 for the purpose of meeting the total lending requirement.

(21) Financial assets – Fair value OCI

€m	30.6.2022	31.12.2021	Change in %
Loans and advances (with recycling)	330	392	–15.8
Debt securities (with recycling)	33,610	39,723	–15.4
Equity instruments (without recycling)	–	–	.
Total	**33,940**	**40,115**	**–15.4**

(22) Financial liabilities – Fair value option

€m	30.6.2022	31.12.2021	Change in %
Deposits	28,302	17,175	64.8
Debt securities issued (Other debt securities issued)	2,688	2,560	5.0
Total	**30,990**	**19,735**	**57.0**

For liabilities to which the fair value option was applied, the change in fair value in the first six months of 2022 due to credit risk reasons was €–255m (previous year: €41m). The cumulative change was €–136m (previous year: €119m).

No reclassifications without effect on income were recognised in retained earnings in the current period due to disposals of financial liabilities for which the fair value option was applied (prior-year period: €0m).

The bonds and notes issued item includes issues of Commerzbank green bonds. Commerzbank successfully issued another green bond in June 2022 with an issue volume of €500m. This is the Bank's third green bond and follows the inaugural issue in October 2018 and the second issue in September 2020. The callable non-preferred senior bond has a fixed interest period until September 2026 and a fixed coupon of 3.00% per year.

New issues with a total volume of €0.5bn were issued in the first six months of 2022 (prior-year period: €0.1bn). During the same period there were no volume of repayments as well as maturing issues within the same period or in the prior-year period.

(23) Financial assets – Mandatorily fair value P&L

€m	30.6.2022	31.12.2021	Change in %
Loans and advances	32,682	23,812	37.2
Debt securities	4,810	3,658	31.5
Equity instruments	946	962	–1.6
Total	**38,439**	**28,432**	**35.2**

(24) Financial assets – Held for trading

€m	30.6.2022	31.12.2021	Change in %
Loans and advances	1,493	1,736	–14.0
Debt securities	3,685	2,176	69.3
Equity instruments	1,069	1,576	–32.2
Positive fair values of derivative financial instruments	34,846	34,760	0.2
Interest-rate-related derivative transactions	19,717	25,527	–22.8
Currency-related derivative transactions	11,979	6,549	82.9
Equity derivatives	1,385	1,218	13.7
Credit derivatives	229	245	–6.5
Other derivative transactions	1,536	1,221	25.8
Other trading positions	2,584	3,541	–27.0
Total	**43,677**	**43,790**	**–0.3**

(25) Financial liabilities – Held for trading

€m	30.6.2022	31.12.2021	Change in %
Certificates and other issued bonds	1,884	468	.
Delivery commitments arising from short sales of securities	1,789	914	95.8
Negative fair values of derivative financial instruments	35,236	31,575	11.6
Interest-rate-related derivative transactions	19,433	22,023	–11.8
Currency-related derivative transactions	11,884	6,580	80.6
Equity derivatives	619	425	45.6
Credit derivatives	204	353	–42.3
Other derivative transactions	3,096	2,193	41.2
Total	**38,909**	**32,957**	**18.1**

Credit risks and credit losses

(26) Credit risks and credit losses

Principles and measurements

IFRS 9 stipulates that impairments due to credit risks from loans and securities that are not measured at fair value through profit or loss must be recognised using a 3-stage model based on expected credit losses.

In the Commerzbank Group, the following financial instruments are included in the scope of this impairment model:

- financial assets in the form of loans and advances as well as debt securities measured at amortised cost;
- financial assets in the form of loans and advances as well as debt securities measured at fair value through other comprehensive income (FVOCI);
- lease receivables;
- irrevocable lending commitments which under IFRS 9 are not measured at fair value through profit or loss;
- financial guarantees within the scope of IFRS 9 that are not measured at fair value through profit or loss.

The Group determines the impairment using a 3-stage model:

In stage 1, as a rule all financial instruments are recognised if their risk of a loan loss (hereinafter default risk) has not increased significantly since their initial recognition. In addition, stage 1 includes all transactions with limited default risk as at the reporting date for which Commerzbank utilises the option provided for in IFRS 9 to refrain from making an assessment about a significant increase in the default risk. These are essentially securities with an investment-grade internal credit rating on the financial reporting date (corresponds to a Commerzbank rating of 2.8 or better). An impairment must be recognised for financial instruments in stage 1 in the amount of the expected credit loss over the next 12 months (12-month expected credit loss or ECL).

Stage 2 includes those financial instruments with default risk that has increased significantly since their initial recognition and which, as at the financial reporting date, cannot be classified as transactions with limited default risk. In addition to a transaction-specific change in the probability of default (PD), Commerzbank defines further qualitative criteria whose presence is assumed to denote a significant increase in default risk. Instruments are then allocated to stage 2 independently of the individual change in PD. Impairments in stage 2 are recognised in the amount of the financial instrument's lifetime expected credit loss (LECL).

Financial instruments that are classified as impaired as at the reporting date are allocated to stage 3. As the criterion for this, Commerzbank uses the definition of a default pursuant to Article 178 CRR as well as the supplementary EBA guidance on the application of the definition of default pursuant to Article 178 CRR. This approach is consistent because the ECL calculation also uses statistical risk parameters derived from the Basel IRB approach, which are modified to meet the requirements of IFRS 9.

The following events can be indicative of a customer default:

- over 90 days past due;
- unlikely to pay;
- financial rescue/distressed restructuring with concessions;
- the Bank has demanded immediate repayment of its claims;
- the customer is in insolvency.

The LECL is likewise used as the value of the required impairment for stage-3 financial instruments in default. When determining the LECL, the Group distinguishes in principle between significant and insignificant cases. The amount of the LECL for insignificant transactions (volumes up to €5m) is determined based on statistical risk parameters. The LECL for significant transactions (volumes greater than €5m) is the expected value of the losses derived from individual expert assessments of future cash flows based on several potential scenarios and their probability of occurrence. The scenarios and probabilities are based on assessments by recovery and resolution specialists. For each scenario – without regard to whether it is a continuation or sale scenario – the timing and amounts of the expected future cash flows are estimated. Both the customer-specific and the macroeconomic situation are taken into account (for example currency restrictions, currency value fluctuations, commodity price developments), as well as the sector environment, with a view to the future. The estimate is also based on external information. Sources include indices (e.g. World Corruption Index), forecasts (e.g. by the IMF), information from global associations of financial service providers (e.g. the Institute of International Finance) and publications from rating agencies and auditing firms.

If a default criterion no longer applies, the financial instrument recovers and, after the applicable probation period has been adhered to, is no longer allocated to stage 3. After recovery, a new assessment is made based on the updated rating information to see if the default risk has increased significantly since initial recognition in the balance sheet, and the instrument is allocated to stage 1 or stage 2 accordingly.

Financial instruments which when initially recognised are already considered impaired as per the aforementioned definition ("purchased or originated credit-impaired", or "POCI", financial instruments) are handled outside the 3-stage impairment model and are therefore not allocated to any of the three stages. The initial recognition is based on fair value without recording an impairment, using an effective interest rate that is adjusted for creditworthiness. The impairment recognised in subsequent periods equals the cumulative change in the LECL since the initial recognition in the balance sheet. The LECL remains the basis for the measurement, even if the value of the financial instrument has increased.

Receivables are written off in the balance sheet as soon as they become uncollectible. Uncollectibility may arise in the settlement process for various objective reasons. This can include completion of insolvency proceedings without further prospect of payments, for example. Moreover, loans are generally regarded as (partially) uncollectible at the latest by 720 days after their due date and are (partially) written down to the recoverable amount within the framework of existing loan loss provisions. Such a (partial) write-down has no direct impact on ongoing debt collection measures.

Assessment of a significant increase in default risk

Commerzbank's rating systems combine into the customer-specific probability of default (PD) all available quantitative and qualitative information relevant for forecasting the default risk. This metric is based primarily on a statistical selection and weighting of all available indicators. In addition, the PD adjusted in accordance with IFRS 9 requirements takes into account not only historical information and the current economic environment, but also, in particular, forward-looking information such as the forecast for the development of macroeconomic conditions.

Commerzbank essentially uses the probability of default (PD) as a frame of reference for assessing whether the default risk of a financial instrument has increased significantly since the date of its initial recognition. By anchoring the review of the relative transfer criterion in the robust processes and procedures of the Bank's Group-wide credit risk management framework (in particular, early identification of credit risk, controlling of overdrafts and the re-rating process), the Bank ensures that a significant increase in the default risk is identified in a reliable and timely manner based on objective criteria.

Commerzbank also applies additional qualitative criteria for allocation to stage 2 (such as when instruments are over 30 days past due and support by the Intensive Care unit is primarily tied to specific rating levels as well as concessions entered into by the Bank, which are referred to as forbearance measures). If these criteria are met, a significant increase in default risk is assumed irrespective of the PD.

For further information on Commerzbank's processes and procedures as well as governance in credit risk management, please refer to the explanatory information in the interim risk report (page 19 ff.).

The review to determine whether the default risk as at the financial reporting date has increased significantly since the initial recognition of the respective financial instrument is performed as at the end of the reporting period. This review compares the observed probability of default over the residual maturity of the financial instrument (lifetime PD) against the lifetime PD over the same period as expected on the date of initial recognition. In accordance with IFRS requirements, in some subportfolios, the original and current PD are compared based on the probability of default over a period of 12 months after the end of the reporting period (12-month PD). In these cases, the Bank uses equivalence analyses to demonstrate that no material variances have occurred compared with an assessment using the lifetime PD.

Thresholds in the form of rating levels are set using a statistical procedure in order to determine whether an increase in the PD compared with the initial recognition date is "significant". These thresholds, which are differentiated by rating models, represent a critical degree of variance compared with the average development of the PD. In order to ensure an economically sound assignment of the stage, transaction-specific factors are taken into account, including the extent of the PD at the initial recognition date, the term to date and the remaining term of the transaction. Allocation to stage 2 is almost exclusively based on the rating thresholds.

Commerzbank generally refrains from checking whether there is a significant increase in the default risk as at the reporting date compared to the time of acquisition of the relevant financial instrument for those transactions for which there is a low default risk as at the reporting date (IFRS 9 option). These are essentially securities with an investment-grade internal credit rating on the financial reporting date (corresponds to a Commerzbank rating of 2.8 or better).

Financial instruments are retransferred from stage 2 to stage 1 if at the end of the reporting period the default risk is no longer significantly elevated compared with the initial recognition date.

Calculation of expected credit loss (ECL)

Commerzbank calculates the ECL as the probability-weighted, unbiased and discounted expected value of future loan losses over the total residual maturity of the respective financial instrument.

The 12-month ECL used for the recognition of impairments in stage 1 is the portion of the LECL that results from default events which are expected to occur within 12 months following the end of the reporting period.

The ECL for stage 1 and stage 2 as well as for insignificant financial instruments in stage 3 is determined on an individual transaction basis taking into account statistical risk parameters. These parameters have been derived from the Basel IRB approach and modified to meet the requirements of IFRS 9.

The significant main parameters used in this determination include the:

- customer-specific probability of default (PD);
- loss given default (LGD); and the
- exposure at default (EaD).

All risk parameters used from the Bank's internal models have been adjusted to meet the specific requirements of IFRS 9, and the forecast horizon has been extended accordingly to cover the entire term of the financial instruments. For example, the forecast for the development of the exposure over the entire term of the financial instrument therefore also includes, in particular, contractual and statutory termination rights.

In the case of loan products that consist of a utilised loan amount and an open credit line and for which in customary commercial practice the credit risk is not limited to the contractual notice period (in Commerzbank this relates primarily to revolving products without a contractually agreed repayment structure, such as overdrafts and credit card facilities), the LECL must be determined using a behavioural maturity, which typically exceeds the maximum contractual period. In order to ensure that the LECL for these products is determined in an empirically sound manner in compliance with IFRS 9 requirements, Commerzbank calculates the LECL directly for these products based on realised historical losses.

As a rule, the Group estimates the risk parameters specific to IFRS 9 based not only on historical default information but also, in particular, on the current economic environment (point-in-time perspective) and forward-looking information. This assessment primarily involves reviewing the effects which the Bank's macroeconomic forecasts will have regarding the amount of the ECL, and including these effects in the determination of the ECL.

A baseline scenario is used for this purpose which relies on the respective applicable consensus (forecasts of different banks on significant macroeconomic factors, such as GDP growth and the unemployment rate). This baseline scenario is then supplemented with additional macroeconomic parameters that are relevant for the model. The baseline scenario specifies ranges for this.

For mBank, the Poland-specific scenario on which the local loan loss provision calculation is based was checked for consistency accordingly.

The baseline scenario reflects the continuing uncertainties caused by the coronavirus pandemic and the Russia-Ukraine war. The baseline scenario includes the following key assumptions.

Global economic recovery is hampered by the adverse effects and uncertainties surrounding the Russia-Ukraine war and the coronavirus pandemic. The high cost of energy due to the war has a significant negative impact on GDP growth and continues to drive up inflation. The assumption is that Russia will not significantly reduce the gas supply to Western countries compared to the situation as it stood on 30 June 2022. The vast majority of the consequences of the coronavirus pandemic remain minor or moderate. Large-scale lockdowns can be prevented in Europe. The leisure industry (restaurants, cinemas, etc.) suffers from smaller-scale restrictions during the winter months. The zero-COVID policy of the People's Republic of China leads to the closure of key international shipping ports and loading stations. This results in persistent supply chain disruptions and rising transport costs. Problems with the supply of raw materials and intermediate products hamper industrial production and lead to rising procurement prices (paper, wood, metals, oil, etc.). In the face of rising inflation, the central banks raise interest rates, which puts additional pressure on economic activities. Strong interest rate hikes by the US Federal Reserve cause the economy to cool down. No new government support programmes are launched. Programmes that are expiring are not extended or replaced.

The rise in energy costs as well as interruptions to supply chains are expected to continue to have negative effects on companies' earnings and liquidity. In our view, the automotive and metal industries will be the ones that are hit hardest in terms of creditworthiness.

Rising energy costs and the expected economic slowdown will also have a direct impact on private households, particularly our Private Customers and Corporate Customers groups.

The baseline scenario takes the following growth assumptions and unemployment rate into consideration:

Baseline scenario	2022	2023
GDP growth		
Germany	1.0% - 1.5%	0.5% - 1.0%
Eurozone	2.0% - 2.5%	0.5% - 1.0%
Rate of unemployment		
Germany	5.0%	5.0%
Eurozone	7.1%	7.0%

The ECB's macroeconomic forecasts published on 23 June 2022 are slightly more positive than Commerzbank's baseline scenario. Due to the uncertainties described below, the underlying baseline scenario is considered reasonable. The transformation of the macroeconomic baseline scenario into effects on the risk parameters is based on statistically derived models.

To give consideration to the current situation and the uncertainties arising from the coronavirus pandemic and the Russia-Ukraine war, the relevant experts were sufficiently involved within the framework of the existing policies. Potential effects from non-linear correlations between different macroeconomic scenarios and the LECL are corrected using a separately determined adjustment factor. The factor was reviewed on an event-driven basis in the second quarter of 2022 and increased slightly. A pessimistic and an optimistic scenario were used to determine the factor. The weightings for the individual scenarios are also always determined by relevant experts and are regulated in a policy.

In the pessimistic scenario, it was assumed that Western countries would agree to stop importing energy from Russia in response to the Russia-Ukraine war. Oil and gas prices continue to rise sharply. Supply chains are impacted both directly and indirectly since intermediate products from Russia and Ukraine are unavailable and high energy costs lead to manufacturing and transport problems. The German economy suffers disproportionately, as a loss of Russian energy is difficult to compensate for in the short term. The purchasing power of private households declines due to the sharp rise in inflation. The scenario also foresees that the US enters a recession in 2022, which then intensifies in 2023. This scenario is characterised in particular by the fact that the poor economic situation persists for several years. In addition to additional credit defaults, the estimated expected credit loss (stages 1 and 2) would increase by €0.9bn in this scenario.

The optimistic scenario assumed that a ceasefire is agreed between Russia and Ukraine and that peace talks begin. The risk of a renewed escalation declines steadily and energy prices drop slightly. Coronavirus infections are reduced successfully worldwide and no virus mutations occur. China relaxes its zero-COVID policy and most supply chain problems disappear. In this optimistic scenario, the estimated expected credit loss (stages 1 and 2) would decrease by €0.3bn.

The table provides an overview of the main underlying macroeconomic parameters in the optimistic and in the pessimistic scenario:

2022	Optimistic szenario	Baseline szenario	Pessimistic szenario
GDP-Growth			
Germany	3.5%	1.0% - 1.5%	–2.0%
Eurozone	4.0%	2.0%-2.5%	–2.0%
Rate of unemployment			
Germany	4.8%	5.0%	6.5%
Eurozone	6.9%	7.1%	8.5%

When calculating the expected credit loss, additional effects are also taken into account resulting from scenarios or events that are not reflected in the IFRS 9 ECL parameter set presented as part of the modelling (these may relate to singular events such as natural disasters, substantial political decisions or military conflicts); for these additional effects, a separately determined adjustment to the result from the IFRS 9 ECL model is made. The examination as to whether such top-level adjustments (TLA) with the involvement of senior management are necessary, as well as their possible implementation, are regulated in a policy.

Such an adjustment to the results of the IFRS 9 ECL model was deemed necessary in the first half of 2022 due to the Russia-Ukraine war and the consequences of the coronavirus pandemic. The parameters used in the corresponding models reflect neither the direct impact of the Russia-Ukraine war on customers from the countries affected nor the indirect or secondary effects of the coronavirus pandemic and the Russia-Ukraine war.

For the Russia TLA, back-office experts used the loss expectations for exposures in the Russia, Belarus and Ukraine country risk portfolios and calculated the loss rates on this basis. Secondary effects expected to arise from the coronavirus pandemic and the Russia-Ukraine war can no longer be clearly attributed to specific causes. This requires the creation of a secondary effects TLA. The methodology used for determining the need for adjustments to the ECL model result corresponds to the methodology used for determining the coronavirus TLA in 2021.

The effects of the adjustments on the stage allocation were taken into account in the calculation of the TLA. This booking was portfolio-based. It is shown in the presentation of the change in loan loss provisions in the line "Changes in parameters and models". No across-the-board stage transfers of individual transactions were made.

In addition to the macroeconomic scenarios and scenario weightings described and factored into the calculation of the ECL as at 30 June 2022, as well as the TLAs included as at 30 June 2022, Commerzbank simulated in a scenario analysis the possible impact of credit rating downgrades that could follow from a rationing of gas supplies due to significant shortages of Russian gas or even a halt to gas deliveries. The simulated scenario simultaneously assumes direct or indirect state support measures for potentially affected households and companies and is based on the assumption of worsened economic forecasts for German GDP of –2.7% in 2022 and −1.1% in 2023, as well as unemployment rates of 6.6% in 2022 and 6.8% in 2023. The analysis shows an additional negative effect of €0.5bn to €0.6bn for this scenario. This effect, established using the methodology applied to the secondary effects TLA, is calculated as the additional TLA requirement to the TLAs included in the financial statements as at 30 June 2022, if such a scenario were to be assumed in the future.

For more information on ECL and TLA, see the interim risk report (see page 19 ff.). In determining total Group loan loss provisions, it is necessary to make assumptions that are subject to high estimation uncertainty, particularly in a dynamic environment.

On the reporting date, the expected credit loss stage 1 and 2 (including the Russia TLA (€178m) and the secondary effects TLA (€386m)) calculated on the basis of the baseline scenario described above was €1.6bn.

Overall, the valuation allowances for risks arising from financial assets and the provisions for off-balance-sheet items changed as follows:

€m	As at 1.1.2022	Net allocations / reversals	Utilisation	Change in the group of consolidated companies	Exchange rate changes/ reclassi-fication	As at 30.6.2022
Valuation allowances for risks from financial assets	2,886	568	418	–	99	3,134
Financial assets – Amortised cost	2,872	550	418	–	95	3,098
Loans and advances	2,829	550	418	–	94	3,055
Debt securities	44	−0	–	–	0	43
Financial assets – Fair value OCI	13	18	–	–	4	36
Loans and advances	1	−1	–	–	0	0
Debt securities	13	19	–	–	4	35
Provisions for financial guarantees	13	−0	–	–	0	13
Provisions for lending commitments	334	−14	–	–	2	322
Provisions for indemnity agreements	211	17	–	–	5	233
Total	**3,443**	**570**	**418**	**–**	**106**	**3,701**

€m	As at 1.1.2021	Net allocations / reversals	Utilisation	Change in the group of consolidated companies	Exchange rate changes/ reclassi-fication	As at 31.12.2021
Valuation allowances for risks from financial assets	3,111	515	738	–	−2	2,886
Financial assets – Amortised cost	3,093	520	738	–	−2	2,872
Loans and advances	3,043	527	738	–	−3	2,829
Debt securities	50	−7	–	–	1	44
Financial assets – Fair value OCI	19	−5	–	–	−0	13
Loans and advances	10	−9	–	–	−0	1
Debt securities	8	4	–	–	−0	13
Provisions for financial guarantees	11	−2	–	–	4	13
Provisions for lending commitments	305	32	–	–	−2	334
Provisions for indemnity agreements	183	26	–	–	2	211
Total	**3,611**	**570**	**738**	**–**	**1**	**3,443**

The breakdown into stages in the current financial year is as follows:

€m	Stage 1	Stage 2	Stage 3	POCI	Total
Valuation allowances for risks from financial assets	324	907	1,821	82	3,134
Loans and advances	288	883	1,801	82	3,055
Debt securities	36	23	20	–	79
Provisions for financial guarantees	2	4	5	2	13
Provisions for lending commitments	101	158	30	33	322
Provisions for indemnity agreements	1	74	107	51	233
Total	**427**	**1,143**	**1,962**	**169**	**3,701**

The breakdown into stages as at 31 December 2021 is as follows:

€m	Stage 1	Stage 2	Stage 3	POCI	Total
Valuation allowances for risks from financial assets	308	759	1,736	83	2,886
Loans and advances	272	739	1,736	83	2,829
Debt securities	36	20	–	–	56
Provisions for financial guarantees	2	3	4	3	13
Provisions for lending commitments	104	158	37	36	334
Provisions for indemnity agreements	1	55	96	59	211
Total	**415**	**975**	**1,873**	**181**	**3,443**

Other notes on financial instruments

(27) IFRS 13 fair value hierarchies and disclosure requirements

Fair value hierarchy

Under IFRS 13, financial instruments are assigned to the three levels of the fair value hierarchy as follows:

- Level 1: Financial instruments where the fair value is based on quoted prices for identical financial instruments in an active market.
- Level 2: Financial instruments where no quoted prices are available for identical instruments in an active market and the fair value is established using valuation techniques which rely on observable market parameters.
- Level 3: Financial instruments where valuation techniques are used that incorporate at least one material input for which there is insufficient observable market data and where at least this input has a more than insignificant impact on the fair value.

With respect to the methods of model-based measurements (level 2 and level 3) relevant for banks, IFRS 13 recognises the market approach and the income approach. The market approach relies on measurement methods that draw on information about identical or comparable assets and liabilities.

The income approach reflects current expectations about future cash flows, expenses and income. The income approach may also include option price models. These valuations are subject to a higher degree to judgements by management. Market data or third-party inputs are relied on to the greatest possible extent, and company-specific inputs to a limited degree.

All fair values are subject to the Commerzbank Group's internal controls and procedures, which set out the standards for independently verifying or validating fair values. These controls and procedures are carried out and coordinated by the Independent Price Verification (IPV) Group within the risk function. The models, inputs and resulting fair values are reviewed regularly by senior management and the risk function.

Disclosure obligations

Below, a distinction is made between:

a) financial instruments measured at fair value (fair value OCI, fair value option, mandatorily fair value P&L and held for trading);

b) financial instruments measured at amortised cost.

The respective disclosure requirements regarding these financial instruments are set out in IFRS 7 and IFRS 13.

a) Financial instruments measured at fair value

According to IFRS 13, the fair value of an asset is the amount for which it could be sold between knowledgeable, willing parties in an arm's length transaction. The fair value therefore represents an exit price. The fair value of a liability is defined as the price at which the debt could be transferred to a third party as part of an orderly transaction.

The measurement of liabilities must also take account of the Bank's own credit spread. If third parties provide security for our liabilities (e.g. guarantees), this security is not taken into account in the valuation of the liability, as the Bank's repayment obligation remains the same.

When measuring derivative transactions, the Group uses the possibility of establishing net risk positions for financial assets and liabilities. The measurement takes into account not only counterparty credit risk but also the Bank's own default risk. The Group determines credit valuation adjustments (CVAs) and debit valuation adjustments (DVAs) by simulating the future fair values of its portfolios of derivatives with the respective counterparty based on observable market data (e.g. CDS spreads). In the case of funding valuation adjustments (FVAs), the funding costs or income of uncollateralised derivatives, as well as collateralised derivatives where there is only partial collateral or the collateral cannot be used for funding purposes, are recognised at fair value. Like CVAs and DVAs, FVAs are also determined from the expected value of the future positive or negative portfolio fair values using observable market data (e.g. CDS spreads). The funding curve used to calculate the FVAs is approximated by the Commerzbank funding curve.

The following tables show the financial instruments reported in the balance sheet at fair value by IFRS 9 fair value category and by class.

Financial assets | €bn	**30.6.2022**				**31.12.2021**			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Financial assets – Fair value OCI								
Loans and advances	–	0.3	–	0.3	–	0.4	–	0.4
Debt securities	24.5	8.5	0.7	33.6	24.4	14.5	0.8	39.7
Equity instruments	–	–	–	–	–	–	–	–
Financial assets – Mandatorily fair value P&L								
Loans and advances	–	31.8	0.9	32.7	–	22.8	1.0	23.8
Debt securities	0.8	3.1	0.9	4.8	0.5	2.2	1.0	3.7
Equity instruments	0.0	–	0.9	0.9	0.0	0.0	0.9	1.0
Financial assets – Held for trading								
Loans and advances	0.8	0.5	0.1	1.5	0.8	0.7	0.2	1.7
Debt securities	2.3	1.4	0.0	3.7	1.3	0.7	0.2	2.2
Equity instruments	1.1	0.0	0.0	1.1	1.6	0.0	0.0	1.6
Derivatives	0.4	32.8	1.7	34.8	0.2	33.7	0.8	34.8
Others	2.6	–	–	2.6	3.5	–	–	3.5
Positive fair values of derivative financial instruments								
Hedge accounting	–	1.8	–	1.8	–	0.8	–	0.8
Non-current assets held for sale and disposal groups								
Loans and advances	–	–	–	–	–	–	–	–
Debt securities	0.1	0.1	–	0.2	0.2	0.0	–	0.2
Equity instruments	0.0	–	–	0.0	–	–	0.0	0.0
Derivatives	–	0.0	–	0.0	–	–	0.1	0.1
Total	**32.5**	**80.3**	**5.2**	**118.0**	**32.6**	**75.8**	**5.1**	**113.4**

Financial liabilities | €bn	30.6.2022				31.12.2021			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial liabilities - Fair value option								
Deposits	–	28.3	–	28.3	–	17.2	–	17.2
Debt securities issued	2.7	–	–	2.7	2.6	–	–	2.6
Financial liabilities - Held for trading								
Derivatives	0.2	34.5	0.5	35.2	0.1	31.0	0.5	31.6
Certificates and other issued bonds	1.9	–	–	1.9	0.5	–	–	0.5
Delivery commitments arising from short sales of securities	1.3	0.5	0.0	1.8	0.6	0.3	0.0	0.9
Negative fair values of derivative hedging instruments								
Hedge accounting	–	4.1	–	4.1	–	6.8	–	6.8
Liabilities of disposal groups								
Deposits	–	–	–	–	–	–	–	–
Debt securities issued	–	–	–	–	–	–	–	–
Derivatives	–	0.0	–	0.0	–	0.0	0.1	0.1
Certificates and other issued bonds	–	–	–	–	–	–	–	–
Delivery commitments arising from short sales of securities	–	–	–	–	–	–	–	–
Total	**6.1**	**67.4**	**0.5**	**74.0**	**3.7**	**55.4**	**0.5**	**59.6**

Commerzbank reclassifies items as at the end of the reporting period.

In the first six months of 2022, €0.5bn of debt securities in the FVOCI category were reclassified from level 1 to level 2, as no quoted market prices were available. By contrast,€8.4bn of debt securities in the FVOCI category, €0.2.bn of debt securities in the mFVPL category, €0.1bn of debt securities in the HFT category and €0.1bn of delivery commitments arising from short sales of securities in the HFT category were reclassified from level 2 back to level 1, as quoted market prices were again available. We did not make any other significant reclassifications between level 1 and level 2.

In the 2021 financial year, €5.6bn of debt securities in the FVOCI category, €0.2bn of debt securities in the mFVPL category and €0.5bn of debt securities in the HFT category were reclassified from level 1 to level 2, as no quoted market prices were available. By contrast, €1.9bn of debt securities in the FVOCI category, €0.6bn of debt securities in the HFT category, €0.4bn of debt securities in the mFVPL category and €0.1bn of delivery commitments arising from short sales of securities in the HFT category were reclassified from level 2 to level 1, as quoted market prices were again available. We did not make any other significant reclassifications between level 1 and level 2.

The changes in financial instruments in the level 3 category were as follows:

Financial assets | €m	Financial assets – Fair value OCI	Financial assets – Mandatorily fair value P&L	Financial assets – Held for trading	Non-current assets held for sale and disposal groups	Total
Fair Value as at 1.1.2022	**774**	**2,948**	**1,271**	**66**	**5,059**
Changes in the group of consolidated companies	–	–	–	–	–
Gains or losses recognised in income statement during the period	–	–141	66	–	–75
of which: unrealised gains or losses	–	–141	75	–	–66
Gains or losses recognised in revaluation reserve	–105	–	–	–	–105
Purchases	–	13	410	–	423
Sales	–	–106	–38	–11	–155
Issues	–	–	–	–	–
Redemptions	–	–	–	–	–
Reclassifications to level 3	–	40	361	–	401
Reclassifications from level 3	–	–1	–254	–55	–309
IFRS 9 reclassifications	–	–	–	–	–
Reclassifications from/to non-current assets held for sale and disposal groups	–	–	–	–	–
Fair value as at 30.6.2022	**669**	**2,753**	**1,816**	**–**	**5,238**

Financial assets | €m	Financial assets – Fair value OCI	Financial assets – Mandatorily fair value P&L	Financial assets – Held for trading	Non-current assets held for sale and disposal groups	Total
Fair Value as at 1.1.2021	**386**	**2,746**	**1,519**	**157**	**4,808**
Changes in the group of consolidated companies	–	–	–	–	–
Gains or losses recognised in income statement during the period	37	216	–64	31	221
of which: unrealised gains or losses	37	216	–64	31	221
Gains or losses recognised in revaluation reserve	–	–	–	–	–
Purchases	351	648	89	–	1,087
Sales	–	–719	–449	–	–1,168
Issues	–	–	–	–	–
Redemptions	–	–	–120	–86	–207
Reclassifications to level 3	–	92	305	11	408
Reclassifications from level 3	–	–35	–9	–47	–90
IFRS 9 reclassifications	–	–	–	–	–
Reclassifications from/to non-current assets held for sale and disposal groups	–	–	–	–	–
Fair value as at 31.12.2021	**774**	**2,948**	**1,271**	**66**	**5,059**

In the first six months of 2022, €0.3bn of debt securities in the HFT category were reclassified from level 2 to level 3, because no market parameters were observable. By contrast, €0.3bn of debt securities in the HFT category and €0.1bn of derivatives included in non-current assets held for sale and disposal groups were reclassified from level 3 back to level 2 because market parameters were again observable. There were no other significant reclassifications.

In the 2021 financial year, €0.1bn of equity instruments in the mFVPL category were reclassified from level 1 to level 3 because no market parameters were observable. Furthermore, €0.2bn of debt securities in the HFT category and €0.1bn of derivatives in the HFT asset category were reclassified from level 2 to level 3 because no market parameters were observable. There were no other significant reclassifications.

The changes in financial liabilities in the level 3 category during the financial year were as follows:

Financial liabilities | €m	**Financial liabilities – Fair value option**	**Financial liabilities – Held for trading**	**Liabilities of disposal groups**	**Total**
Fair Value as at 1.1.2022	**–**	**454**	**75**	**529**
Changes in the group of consolidated companies	–	–	–	–
Gains or losses recognised in income statement during the period	–	–127	–	–127
of which: unrealised gains or losses	–	–42	–	–42
Purchases	–	91	–	91
Sales	–	–17	–2	–19
Issues	–	–	–	–
Redemptions	–	–	–	–
Reclassifications to level 3	–	201	–	201
Reclassifications from level 3	–	–83	–73	–156
Reclassification from/to liabilities of disposal groups	–	–	–	–
Fair value as at 30.6.2022	**–**	**519**	**–**	**519**

Financial liabilities | €m	**Financial liabilities – Fair value option**	**Financial liabilities – Held for trading**	**Liabilities of disposal groups**	**Total**
Fair Value as at 1.1.2021	**–**	**654**	**100**	**754**
Changes in the group of consolidated companies	–	–	–	–
Gains or losses recognised in income statement during the period	–	14	–15	–1
of which: unrealised gains or losses	–	14	8	21
Purchases	–	352	–	352
Sales	–	–593	–0	–593
Issues	–	–	–	–
Redemptions	–	–	–39	–39
Reclassifications to level 3	–	30	34	65
Reclassifications from level 3	–	–3	–5	–8
Reclassification from/to liabilities of disposal groups	–	–	–	–
Fair value as at 31.12.2021	**–**	**454**	**75**	**529**

In the first six months of 2022, reclassifications of €0.2bn were made from level 2 to level 3 for derivatives in the HFT liabilities category from disposal groups, as no observable market parameters were available. By contrast, €0.1bn of derivatives in liabilities from disposal groups were reclassified from level 3 back to level 2 because market parameters were again observable. There were no other significant reclassifications.

In the 2021 financial year, there were no other significant reclassifications of liabilities from or to level 3.

Sensitivity analysis

Where the value of financial instruments is based on unobservable input parameters (level 3), the precise level of these parameters at the reporting date may be derived from a range of reasonable possible alternatives at the discretion of management. In preparing the Group financial statements, appropriate levels for these unobservable input parameters are chosen which are consistent with existing market evidence and in line with the Group's valuation control approach.

The purpose of this disclosure is to illustrate the potential impact of the relative uncertainty in the fair values of financial instruments with valuations based on unobservable input parameters (level 3). Interdependencies frequently exist between the parameters used to determine level 3 fair values and are accounted for by means of correlation parameters insofar as they have a significant effect on the fair values in question. If a valuation model uses several parameters, the choice of one parameter may restrict the range of possible values the other parameters may take.

The main unobservable input parameters for level 3 and the key related factors may be summarised as follows:

- Internal rate of return (IRR):
  The IRR is defined as the discount rate that sets the net present value of all future cash flows from an instrument equal to zero. For bonds, for example, the IRR depends on the current bond price, the nominal value and the duration.
- Credit spread:
  The credit spread is the yield spread (premium or discount) between securities that are identical in all respects except for their respective credit quality. The credit spread represents the excess yield above the benchmark reference instrument that compensates for the difference in creditworthiness between the instrument and the benchmark. Credit spreads are quoted in terms of the number of basis points above (or below) the quoted benchmark. The wider (higher) the credit spread in relation to the benchmark, the lower the instrument's creditworthiness, and vice versa for narrower (lower) credit spreads.
- Interest rate-forex (IR-FX) correlation:
  The IR-FX correlation is relevant for the pricing of exotic interest rate swaps involving the exchange of funding instruments in one currency and an exotic structured leg that is usually based on the development of two government bond yields in different currencies. Consensus market data for longer durations are not observable for certain exotic interest products. For example, CMT yields for US government bonds with a duration of more than ten years are not observable.
- Recovery rates, survival and default probabilities:
  Supply and demand as well as the arbitrage relationship with asset swaps tend to be the dominant factors driving pricing of credit default swaps (CDS). Models for pricing credit default swaps tend to be used more for exotic structures and off-market default swap valuation for which fixed interest payments above or below the market rate are agreed. These models calculate the implied default probability of the reference asset as a means of discounting the cash flows expected in a credit default swap. The model inputs are credit spreads and recovery rates that are used to interpolate ("bootstrap") a time series of survival probabilities of the reference asset. A typical recovery rate assumption in the default swap market for senior unsecured contracts is 40%. Assumptions about recovery rates are a factor determining the shape of the survival probability curve. Different recovery rate assumptions translate into different survival probability rates. For a given credit spread, a high recovery rate assumption implies a higher probability of default (relative to a low recovery rate assumption) and hence a lower survival probability. There is a relationship over time between default rates and recovery rates of corporate bond issuers. The correlation between the two is an inverse one: an increase in the default rate (defined as the percentage of issuers defaulting) is generally associated with a decline in the average recovery rate.

In practice, market participants use market spreads to determine implied default probabilities. Estimates of default probabilities also depend on the joint loss distributions of the parties involved in a credit derivative transaction. The copula function is used to measure the correlation structure between two or more variables. The copula function creates a joint distribution while keeping the characteristics of the two independent marginal distributions.

- Repo curve:
  The repo curve parameter is an input parameter that is relevant for the pricing of repurchase agreements (repos). Generally, these are short-dated maturities ranging from O/N up to 12 months. Beyond 12-month maturities the repo curve parameter may become unobservable, particularly for emerging market underlyings, due to the lack of available independent observable market data. In some cases, proxy repo curves may be used to estimate the repo curve input parameter. Where this is deemed insufficient, the input parameter will be classified as unobservable. Furthermore, mutual-fund-related repos may also contain unobservable repo curve exposures.
- Price:
  Certain interest rate and loan instruments are accounted for on the basis of their price. It follows that the price itself is the

unobservable parameter of which the sensitivity is estimated as a deviation in the net present value of the positions.

- Investment fund volatility:
  In general, the market for options on investment funds is less liquid than the market for stock options. As a result, the volatility of the underlying investment funds is determined based on the composition of the fund products. There is an indirect method of determining the corresponding volatility surfaces. This method is assigned to level 3 because the market data it uses are not liquid enough to be classified as level 2.
- Inflation volatility:
  The degree of fluctuation in financial instruments that transfer inflation risk between parties. This is based on a historical time series of cash flows, linked to the inflation trend.

The following ranges for the material unobservable parameters were used in the valuation of our level 3 financial instruments:

€m		30.6.2022			30.6.2022	
	Valuation techniques	Assets	Liabilities	Significant unobservable input parameters	Range	
Loans and advances		**1,033**	**–**		–	–
Repos	DCF-model	516	–	Repo-curve (bps)	162	361
Ship financing	DCF-model	–	–	Credit spread (bps)	–	–
Other loans	DCF-model	517	–	Credit spread (bps)	99	2,470
Debt securities		**1,610**	**19**		–	–
Interest-rate-related transactions	Spread based model	1,610	19	Credit spread (bps)	100	500
of which: ABS	DCF-model	754	–	Price (%)	90%	110%
Equity instruments		**942**	**–**		–	–
Equity-related transactions	DCF-model	942	–	Price (%)	90%	110%
Derivatives		**1,654**	**500**			
Equity-related transactions	DCF-model	900	113	IRR (%)	5%	20%
	Option pricing model	–	–	Investment fund volatility	1%	1%
Credit derivatives (incl. PFI and IRS)	DCF-model	472	215	Credit spread (bps)	26	4,700
		–	–	Recovery rate (%)	0%	50%
Interest-rate-related transactions	Option pricing model	282	172	Inflation Volatility (%)	–11%	16%
Other transactions		–	–		–	–
Total		**5,238**	**519**			

€m		31.12.2021			31.12.2021	
	Valuation techniques	Assets	Liabilities	Significant unobservable input parameters	Range	
Loans and advances		**1,232**	**–**		–	–
Repos	DCF-model	597	–	Repo-curve (bps)	–8	139
Ship financing	DCF-model	–	–	Credit spread (bps)	–	–
Other loans	DCF-model	635	–	Credit spread (bps)	99	2,470
Debt securities		**1,996**	**2**		–	–
Interest-rate-related transactions	Spread based model	1,996	2	Credit spread (bps)	100	500
of which: ABS	Spread based model	717	–	Price (%)	90%	110%
Equity instruments		**924**	**–**		–	–
Equity-related transactions	DCF-model	924	–	Price (%)	90%	110%
Derivatives		**906**	**527**			
Equity-related transactions	DCF-model	875	251	IRR (%)	5%	20%
	Option pricing model	–	–	Investment fund volatility	1%	40%
Credit derivatives (incl. PFI and IRS)	DCF-model	32	276	Credit spread (bps)	8	2,240
		–	–	Recovery rate (%)	0%	50%
Interest-rate-related transactions	Option pricing model	–	–	IR-FX correlation (%)	20%	40%
Other transactions		–	–		–	–
Total		**5,059**	**529**			

The table below shows the impact on the income statement of reasonable parameter estimates on the edges of these ranges for instruments in level 3 of the fair value hierarchy. The sensitivity analysis for financial instruments in level 3 of the fair value hierarchy is broken down by type of financial instrument:

€m	30.6.2022		
	Positive effects on income statement	Negative effects on income statement	Changed parameters
Loans and advances	**10**	**–10**	
Repos	5	–5	Repo curve
Ship financing	–	–	Credit spread
Other loans	5	–5	Credit spread
Debt securities	**36**	**–36**	
Interest-rate-related transactions	36	–36	Price
of which: ABS	22	–22	Price
Equity instruments	**4**	**–4**	
Equity-related transactions	4	–4	Price
Derivatives	**20**	**–20**	
Equity-related transactions	16	–16	IRR, price based, investment fund volatility
Credit derivatives (incl. PFI and IRS)	3	–3	Credit spread, recovery rate, price
Interest-rate-related transactions	1	–1	Price, IR-FX correlation
Other transactions	–	–	

€m	31.12.2021		
	Positive effects on income statement	Negative effects on income statement	Changed parameters
Loans and advances	**14**	**–14**	
Repos	6	–6	Repo curve
Ship financing	–	–	Credit spread
Other loans	8	–8	Credit spread
Debt securities	**40**	**–40**	
Interest-rate-related transactions	40	–40	Price
of which: ABS	19	–19	Price
Equity instruments	**5**	**–5**	
Equity-related transactions	5	–5	Price
Derivatives	**18**	**–18**	
Equity-related transactions	18	–18	IRR, price based, investment fund volatility
Credit derivatives (incl. PFI and IRS)	0	–0	Credit spread, recovery rate, price
Interest-rate-related transactions	–	–	Price, IR-FX correlation
Other transactions	–	–	

The selected parameters lie at the extremes of their range of reasonable possible alternatives. In practice, however, it is unlikely that all unobservable parameters would simultaneously lie at the extremes of their range of reasonable possible alternatives. Consequently, the estimates provided are likely to exceed the actual uncertainty in the fair values of these instruments. The purpose of these figures is not to estimate or predict future changes in fair value. The unobservable parameters were either shifted by between 1 and 10% as deemed appropriate by our independent valuation experts for each type of instrument or a measure of standard deviation was applied.

Day one profit or loss

The Commerzbank Group has entered into transactions where the fair value was calculated using a valuation model, where not all material input parameters were observable in the market. The initial carrying value of such transactions is the fair value. The difference between the transaction price and the fair value under the model is termed the “day one profit or loss”. The day one profit or loss is not recognised immediately in the income statement but over the term of the transaction. As soon as there is a quoted market price on an active market for such transactions or all material input parameters become observable, the accrued day one profit or loss is immediately recognised in the income statement in the gain or loss from financial assets and liabilities measured at fair value through profit or loss. A cumulated difference between the transaction price and fair value determined by the model is calculated for the level 3 items in all categories. Material impacts result only from financial instruments held for trading.

The amounts changed as follows:

€m	Day-one profit or loss		
	Financial assets – Held for trading	Financial liabilities – Held for trading	Total
Balance as at 1.1.2021	**–**	**14**	**14**
Allocations not recognised in income statement	–	0	0
Reversals recognised in income statement	–	–6	–6
Balance as at 31.12.2021	**–**	**8**	**8**
Allocations not recognised in income statement	–	0	0
Reversals recognised in income statement	–	–2	–2
Balance as at 30.6.2022	**–**	**6**	**6**

b) Financial instruments measured at amortised cost

IFRS 7 additionally requires disclosure of the fair values for financial instruments not recognised in the balance sheet at fair value. The measurement methodology to determine fair value in these cases is explained below.

The nominal value of financial instruments that fall due on a daily basis is taken as their fair value. Market prices are not available for loans. In the case of loans, the Bank therefore applies a discounted cash flow model (DCF-model).

The cash flows are discounted using a risk-free interest rate plus premiums for risk costs, refinancing costs, operating expenses and equity costs. The risk-free interest rate is determined based on swap rates (swap curves) that match the corresponding maturities and currencies. These can usually be derived from external data.

In addition, the Bank applies a premium in the form of a calibration constant that includes a profit margin. The profit margin is reflected in the model valuation of loans such that fair value as at the initial recognition date corresponds to the disbursement amount.

Data on the credit risk costs of major banks and corporate customers are available in the form of credit spreads.

In the case of securities accounted for in the amortised cost category of IFRS 9, fair value is determined based on available market prices (level 1), assuming an active market exists. If there is no active market, recognised valuation methods are to be used to determine the fair values. In general, an asset swap pricing model is used for the valuation. The parameters applied comprise yield curves and the asset swap spreads of comparable benchmark instruments.

For deposits, a DCF model is generally used for determining fair value, since market data are usually not available. In addition to the yield curve, own credit spread and a premium for operating expenses are also taken into account. Credit spreads of the respective counterparties are not used in the measurement of liabilities.

The fair value of debt securities issued is determined on the basis of available market prices. If no prices are available, the discounted cash flow model (DCF) is used to determine the fair values. A number of different factors, including current market interest rates, own credit spread and equity costs. are taken into account in determining fair value.

With respect to each of the explanations provided above, if available market prices are applied, they are to be classified as level 1. Otherwise, classification is made at level 2 or level 3, depending on the input parameters used (observable or not observable).

30.6.2022 | €bn	Fair value	Carrying amount	Difference	Level 1	Level 2	Level 3
Assets	**396.7**	**407.1**	**–10.4**	**9.6**	**142.0**	**245.1**
Cash on hand and cash on demand	104.7	104.7	–	–	104.7	–
Financial assets – Amortised cost	291.5	304.6	–13.1	9.6	36.7	245.1
Loans and advances	262.7	273.4	–10.7	–	21.3	241.4
Debt securities	28.7	31.2	–2.4	9.6	15.4	3.7
Value adjustment on portfolio fair value hedges	–	–2.7	2.7	–	–	–
Non-current assets held for sale and disposal groups	0.6	0.6	–	–	0.6	–
Loans and advances	0.6	0.6	–	–	0.6	–
Debt securities	–	–	–	–	–	–
Liabilities	**424.4**	**422.1**	**2.3**	**29.4**	**393.7**	**1.3**
Financial liabilities – Amortised cost	423.8	424.6	–0.7	29.4	393.1	1.3
Deposits	386.3	387.1	–0.8	–	386.6	–0.2
Debt securities issued	37.5	37.5	0.0	29.4	6.6	1.5
Value adjustment on portfolio fair value hedges	–	–3.1	3.1	–	–	–
Liabilities of disposal groups	0.6	0.6	–	–	0.6	–
Deposits	0.6	0.6	–	–	0.6	–
Debt securities issued	–	–	–	–	–	–

31.12.2021 | €bn	Fair value	Carrying amount	Difference	Level 1	Level 2	Level 3
Assets	**349.3**	**349.7**	**–0.4**	**10.7**	**83.8**	**254.8**
Cash on hand and cash on demand	49.5	49.5	–	–	49.5	–
Financial assets – Amortised cost	299.3	299.2	0.1	10.7	33.8	254.8
Loans and advances	267.2	265.0	2.2	–	18.2	249.0
Debt securities	32.1	34.2	–2.0	10.7	15.6	5.8
Value adjustment on portfolio fair value hedges	–	0.5	–0.5	–	–	–
Non-current assets held for sale and disposal groups	0.5	0.5	–	–	0.5	–
Loans and advances	0.5	0.5	–	–	0.5	–
Debt securities	–	–	–	–	–	–
Liabilities	**377.4**	**374.8**	**2.6**	**31.0**	**343.3**	**3.1**
Financial liabilities – Amortised cost	376.8	374.0	2.8	31.0	342.7	3.1
Deposits	335.1	334.6	0.5	–	333.4	1.7
Debt securities issued	41.6	39.4	2.3	31.0	9.2	1.4
Value adjustment on portfolio fair value hedges	–	0.2	–0.2	–	–	–
Liabilities of disposal groups	0.6	0.6	–	–	0.6	–
Deposits	0.6	0.6	–	–	0.6	–
Debt securities issued	–	–	–	–	–	–

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(28) Information on netting of financial instruments

Assets | €m	30.6.2022		31.12.2021	
	Reverse repos	Positive fair values of derivative financial instruments	Reverse repos	Positive fair values of derivative financial instruments
Gross amount of financial instruments	52,669	124,037	42,673	92,449
Book values not eligible for netting	14,863	4,308	13,484	2,913
a) Gross amount of financial instruments I and II	37,806	119,729	29,188	89,537
b) Amount netted in the balance sheet for financial instruments I[1]	22,215	87,437	19,288	56,781
c) Net amount of financial instruments I and II = a) – b)	15,591	32,292	9,900	32,756
d) Master agreements not already accounted for in b)				
Amount of financial instruments II which do not fulfil or only partially fulfil the criteria under IAS 32.42[2]	2,092	16,068	1,307	18,586
Fair value of financial collateral relating to financial instruments I and II not already accounted for in b)[3]				
Non-cash collateral[4]	8,202	12	3,574	9
Cash collateral	964	4,101	4,074	5,287
e) Net amount of financial instruments I and II = c) – d)	4,333	12,112	945	8,874
f) Fair value of financial collateral of central counterparties relating to financial instruments	2,564	–	709	76
g) Net amount of financial instruments I and II = e) – f)	1,769	12,112	236	8,798

[1] For positive fair values, additional €7,025m (previous year: €5,174m) variation margins will be paid.
[2] Lesser amount of assets and liabilities.
[3] Excluding rights or obligations to return arising from the transfer of securities.
[4] Including financial instruments not reported on the balance sheet (e.g. securities provided as collateral in repo transactions).

Liabilities | €m	30.6.2022		31.12.2021	
	Repos	Negative fair values of derivative financial instruments	Repos	Negative fair values of derivative financial instruments
Gross amount of financial instruments	49,343	124,802	35,629	94,990
Book values not eligible for netting	9,852	3,377	9,612	1,815
a) Gross amount of financial instruments I and II	39,491	121,425	26,016	93,175
b) Amount netted in the balance sheet for financial instruments I[1]	22,215	85,426	19,288	56,491
c) Net amount of financial instruments I and II = a) – b)	17,276	35,999	6,728	36,684
d) Master agreements not already accounted for in b)				
Amount of financial instruments II which do not fulfil or only partially fulfil the criteria under IAS 32.42[2]	2,092	16,068	1,307	18,586
Fair value of financial collateral relating to financial instruments I and II not already accounted for in b)[3]				
Non-cash collateral[4]	7,403	0	–	–
Cash collateral	2,757	5,739	2,392	8,706
e) Net amount of financial instruments I and II = c) – d)	5,024	14,192	3,029	9,392
f) Fair value of financial collateral of central counterparties relating to financial instruments I	4,399	–	2,802	47
g) Net amount of financial instruments I and II = e) – f)	625	14,192	227	9,345

1 For negative fair values, additional €9,036m (previous year: €5,463m) variation margins will be paid.
2 Lesser amount of assets and liabilities.
3 Excluding rights or obligations to return arising from the transfer of securities.
4 Including financial instruments not reported on the balance sheet (e.g. securities provided as collateral in repo transactions).

(29) Derivatives

The total effect of netting amounted to €94,462m as at 30 June 2022 (previous year: €61,955m). On the assets side, €87,437m of this was attributable to positive fair values (previous year: €56,781m) and €7,025m to claims for variation margins (previous year: €5,174m). Netting on the liabilities side involved negative fair values of €85,426m (previous year: €56,492m) and liabilities for variation margins payable of €9,036m (previous year: €5,463m).

Notes to the balance sheet (non-financial instruments)

(30) Intangible assets

€m	30.6.2022	31.12.2021	Change in %
Goodwill	–	–	.
Other intangible assets	1,254	1,243	0.9
Customer relationships	11	11	–6.6
In-house developed software	808	786	2.7
Purchased software and other intangible assets	436	445	–2.0
Total	**1,254**	**1,243**	**0.9**

(31) Fixed assets

€m	30.6.2022	31.12.2021	Change in %
Land and buildings	210	219	–3.9
Rights of use (leases)	1,619	1,747	–7.3
Office furniture and equipment	354	383	–7.4
Leased equipment	528	533	–0.9
Total	**2,712**	**2,881**	**–5.9**

(32) Other assets

€m	30.6.2022	31.12.2021	Change in %
Precious metals	81	80	2.1
Accrued and deferred items	339	269	25.7
Defined benefit assets recognised	634	514	23.5
Other assets	1,598	1,281	24.7
Total	**2,652**	**2,143**	**23.7**

(33) Other liabilities

€m	30.6.2022	31.12.2021	Change in %
Liabilities attributable to film funds	80	192	–58.4
Liabilities attributable to non-controlling interests	69	59	16.4
Accrued and deferred items	282	272	3.7
Lease liabilities	1,811	1,933	–6.3
Other liabilities	2,231	2,021	10.4
Total	**4,473**	**4,478**	**–0.1**

(34) Provisions

m€	30.6.2022	31.12.2021	Change in %
Provisions for pensions and similar commitments	326	255	27.7
Other provisions	3,044	3,497	–13.0
Total	**3,369**	**3,752**	**–10.2**

The provisions for pensions and similar commitments relate primarily to direct pension commitments in Germany (see page 249 f. of the Annual Report 2021). The actuarial assumptions underlying these obligations at 30 June 2022 were: a discount rate of 3.6% (previous year: 1.4%) and an expected adjustment to pensions of 2.0% (previous year: 2.0%).

Other provisions consisted primarily of restructuring provisions provisions for contingent liabilities as well as and provisions for personnel-related matters.

Legal disputes

In case of legal proceedings or possible third-party recourse claims for which provisions need to be recognised, and which are contained in "Other provisions", neither the duration of the proceedings nor the level of utilisation of the provision can be predicted with certainty at the date the provision is recognised. The provisions cover the costs expected according to our judgement as at the reporting date. We have not set out the provision amounts and sensitivities individually to avoid influencing the outcome of the various proceedings.

- Commerzbank and its subsidiaries operate in a large number of jurisdictions subject to different legal and regulatory requirements. In isolated cases in the past, infringements of legal and regulatory provisions have come to light and have been prosecuted by government agencies and institutions. Some companies within the Commerzbank Group are currently still involved in a number of such cases.
- Commerzbank and its subsidiaries are especially active in the area of investment advisory within the Private and Small-Business Customers segment. The legal requirements for investor- and investment-oriented advisory services have been made more rigorous, especially in recent years. Commerzbank and its subsidiaries have consequently been involved in a number of legal disputes, some of which are still pending, with investors who claim to have received poor or inadequate investment advice and who demand compensation for damages or the reversal of investment transactions where information regarding commission fees was lacking (e.g. for closed-end funds).
- Commerzbank is exposed to claims from customers owing to "cancellation joker" ("Widerrufsjoker") issues. Following a change in the law, according to which any right to cancel loan agreements concluded between 2002 and 2010 could lapse no later than on 21 June 2016, many borrowers cancelled their agreements and asserted that the information given to them about cancellation when they concluded the agreement had been deficient. Some of them took legal action against the Bank when it refused to accept their cancellation, intending to immediately pay back the loan prior to the expiry of the fixed interest term without having to compensate the Bank for the loss incurred as a consequence of the early repayment. For agreements concluded after 2010, an attempt is also being made to use the cancellation joker to withdraw from the agreements prematurely. The Bank has contested these claims.
  In its judgement of 26 March 2020, the European Court of Justice decided that a reference to other legal provisions contained in the (statutory) boilerplate information on cancellation for customer loan agreements was unclear to the consumer and regarded this as a breach of the requirements of the European Consumer Credit Directive. In its consumer loan agreements the Bank has used the legal model which the German Federal Court of Justice has already deemed to be in order in several decisions. The Federal Court of Justice has convincingly justified this by arguing that the German courts cannot disregard a national standard which is clear in its wording and meaning. The Federal Court of Justice most recently confirmed its stance in a decision on 31 March 2020. For this reason the Bank does not consider itself to be exposed to any increased risks as a result of the ECJ ruling for the current portfolio of consumer loans.
- A subsidiary of Commerzbank was involved in a South American bank which in the meantime has gone into liquidation. A number of investors and creditors of this bank have launched various legal actions in Uruguay and Argentina against the subsidiary, and, in some cases, Commerzbank as well, alleging liability as shareholders of the bankrupt companies as well as breaches of duty by the persons nominated by the subsidiary for the banks' supervisory boards. In addition, the subsidiary was involved in two funds which raised money from investors and were managed by third parties. The liquidators of these funds have launched court proceedings in the USA demanding the repayment of amounts received by the subsidiary from the funds.
- A subsidiary of Commerzbank was sued by a customer in May 2014 for compensation due to alleged fraudulent misselling of derivative transactions. The subsidiary is defending itself against the claim.
- 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 (CHF). A total of 1,731 plaintiffs have joined the class action. The plaintiffs have appealed against the claim's dismissal by the court of first instance.

Independently of this, numerous borrowers have also filed individual lawsuits for the same reasons. In addition to the class action, 15,701 other individual proceedings were pending as at 30 June 2022 (prior year: 13,036). The subsidiary is defending itself against all of the claims.

As at 30 June 2022, there were 1,049 final rulings in individual proceedings against the subsidiary, of which 89 were decided in favour of the subsidiary and 960 were decided against the subsidiary. A total of 171 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).

A ruling by the Polish Supreme Court on loan agreements denominated in Swiss francs with indexation clauses was once again adjourned indefinitely in September 2021; 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.

In February 2022, key questions from Polish courts on the handling of loans with indexation clauses in proceedings against the subsidiary were referred once again to the ECJ for a preliminary ruling (C-138/22, C-139/22, C-140/22); the period for statements from the parties involved has not yet elapsed. Other preliminary ruling proceedings on loans with indexation clauses are pending before the ECJ (C-80/21, C-81/21, C-82/21), two of which concern proceedings against the subsidiary. No rulings have been made to date.

In the second quarter of 2022 the subsidiary completed the second phase of the pilot project for settlement agreements; this phase covered about 1,500 agreements and ended with an acceptance rate of around 12%.

Against the background of the 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. CHF 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 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.

All expenses in connection with Swiss franc loan agreements with indexation clauses are reported in full in the income statement under other operating expenses.

As at 30 June 2022, the portfolio of loans denominated in CHF that have not been fully repaid had a carrying amount of 8.7bn Polish zlotys; the portfolio that had already been repaid amounted to 6.9bn Polish zlotys when it was disbursed. Overall, the Group recognised a provision of €940m (prior year: €899m) for the risks arising from the matter, including potential settlement payments and the class action lawsuit.

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 €215.7m.

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.

- A Commerzbank subsidiary, together with another bank, was sued for damages in May 2018 due to alleged unfair price collusion in connection with the levying of settlement fees. The subsidiary is defending itself against the action.
- A subsidiary of Commerzbank was sued by a customer for compensation due to alleged unlawful selling of collateral. The subsidiary is defending itself against the claim.
- In proceedings relating to a specific retail mortgage loan agreement, a court overturned the finding of the lower court and ruled that the contractual clause concerning the calculation of prepayment penalty fees was insufficient and the prepayment penalty fee received by the Bank has to be refunded. The judgement is final. The Bank has recognised a corresponding provision for the possibility that a refund must be made in similar cases.
- 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 analysed 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.

- 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, the tax risks arising from this issue have thereby been adequately covered. The possibility of further charges over and above the provisions recognised by the Bank cannot be completely ruled out.
- The Bank terminated an outsourcing project prematurely by exercising a special right of termination granted in the outsourcing agreement. The contracting parties have concluded a settlement agreement on the reversal; the financial compensation has been paid.
- In a lawsuit filed in May 2019, a Commerzbank customer sought a ruling that the Bank must compensate the claimant for material damages caused by alleged false advice in connection with derivatives in the form of swap contracts. Settlement discussions are currently underway.

(35) Contingent liabilities and lending commitments

€m	30.6.2022	31.12.2021	Change in %
Contingent liabilities	45,668	44,526	2.6
Lending commitments	83,408	80,635	3.4
Total	**129,076**	**125,161**	**3.1**

As at 30 June 2022, the contingent liabilities for legal risks amounted to €568m (previous year: €379m) and related to the following material issues:

- Several claims have been filed against a subsidiary of Commerzbank by customers of a former corporate customer. The claims were definitively dismissed in May 2022.
- A customer sued Commerzbank for recovery of monies in April 2016. The claimant is demanding the repayment of interest which in its view was wrongly paid to Commerzbank and is also demanding the release of collateral which is being held as security for a claim by Commerzbank against the claimant. Commerzbank and the claimant are in dispute about the legal validity of Commerzbank's secured claim. Commerzbank is defending itself against the action.
- A Commerzbank subsidiary together with another bank was sued for damages in February 2020 due to alleged unfair price collusion in connection with the levying of settlement fees. The subsidiary is defending itself against the action.
- In February 2022, Commerzbank was sued in Hungary for damages in connection with a failed project. The Bank is defending itself against the action.

The contingent liabilities for tax risks relate to the following material issues:

- 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 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.
- 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.

Segment reporting

(36) Segment reporting

Segment reporting reflects the results of the operating segments within the Commerzbank Group.

The operating segments' capital requirement for risk-weighted assets was increased at the start of the 2022 financial year to 12.5% (prior year: 12.0%). The Credit Solutions division was transferred from the Corporate Clients segment to the Others and Consolidation segment in the second quarter of 2021.

Further information on the segments is provided in the interim management report section of this Interim Report.

1.1.-30.6.2022 | €m	Private and Small Business Customers	Corporate Clients	Others and Consolidation	Group
Net interest income	1,793	913	173	2,879
Dividend income	5	3	– 1	7
Risk result	– 160	– 338	– 72	– 570
Net commission income	1,230	659	– 20	1,868
Net income from financial assets and liabilities measured at fair value through profit or loss	8	218	196	422
Net income from hedge accounting	0	– 16	– 26	– 41
Other net income from financial instruments	– 10	– 4	16	2
Current net income from companies accounted for using the equity method	– 1	6	– 0	4
Other net income	– 14	30	59	75
Income before risk result	**3,011**	**1,808**	**397**	**5,216**
Income after risk result	**2,851**	**1,470**	**325**	**4,646**
Operating expenses	1,653	1,037	175	2,865
Compulsory contributions	314	116	62	491
Operating profit or loss	**884**	**317**	**88**	**1,289**
Restructuring expenses	–	0	39	39
Pre-tax profit or loss	**884**	**317**	**49**	**1,250**
Assets	**168,145**	**150,505**	**216,400**	**535,049**
of which: discontinued assets	–	–	–	–
Liabilities	**204,635**	**178,397**	**152,017**	**535,049**
of which: discontinued liabilities	–	–	–	–
Carrying amount of companies accounted for using the equity method	**24**	**153**	**–**	**177**
Average capital employed (from continuing operations) (based on CET1)[1]	**6,744**	**9,991**	**7,159**	**23,894**
Operating return on equity (%)[2]	**26.2**	**6.4**		**10.8**
Cost/income ratio in operating business (excl. compulsory contributions) (%)	**54.9**	**57.3**		**54.9**
Cost/income ratio in operating business (incl. compulsory contributions) (%)	**65.3**	**63.8**		**64.3**

[1] Average CET1 capital fully loaded. Reconciliation carried out in Others and Consolidation.
[2] Annualised.

1.1.-30.6.2021 | €m[1]	Private and Small Business Customers	Corporate Clients	Others and Consolidation	Group
Net interest income	1,229	840	358	2,427
Dividend income	5	3	– 1	7
Risk result	– 126	– 39	– 70	– 235
Net commission income	1,227	601	– 25	1,803
Net income from financial assets and liabilities measured at fair value through profit or loss	128	178	180	485
Net income from hedge accounting	– 1	– 5	– 46	– 52
Other net income from financial instruments	20	– 5	2	17
Current net income from companies accounted for using the equity method	0	2	– 0	2
Other net income	– 150	– 16	– 170	– 335
Income before risk result	**2,458**	**1,598**	**298**	**4,353**
Income after risk result	**2,332**	**1,558**	**228**	**4,118**
Operating expenses	1,717	1,121	335	3,173
Compulsory contributions	227	95	53	375
Operating profit or loss	**388**	**342**	**– 160**	**570**
Restructuring expenses	–	– 0	976	976
Pre-tax profit or loss	**388**	**342**	**– 1,136**	**– 406**
Assets	**161,641**	**152,251**	**229,751**	**543,643**
of which: discontinued assets	–	1,809	–	1,809
Liabilities	**202,304**	**180,334**	**161,005**	**543,643**
of which: discontinued liabilities	–	1,847	–	1,847
Carrying amount of companies accounted for using the equity method	**29**	**141**	**1**	**170**
Average capital employed (from continuing operations) (based on CET1)[2]	**5,994**	**10,119**	**7,597**	**23,710**
Operating return on equity (%)[3]	**12.9**	**6.8**		**4.8**
Cost/income ratio in operating business (excl. compulsory contributions) (%)	**69.9**	**70.2**		**72.9**
Cost/income ratio in operating business (incl. compulsory contributions) (%)	**79.1**	**76.1**		**81.5**

[1] Prior-year figures adjusted due to IFRS8.29.
[2] Average CET1 capital fully loaded. Reconciliation carried out in Others and Consolidation.
[3] Annualised.

Other notes

(37) Selected regulatory disclosures

The following chart shows the composition of the Commerzbank Group's own funds and risk-weighted assets together with its own funds ratios in accordance with the Capital Requirements Regulation (CRR), including the transitional provisions applied.

	30.6.2022	31.12.2021	Change in %
Common Equity Tier[1] (€bn)	24.0	23.8	1.1
Tier 1 capital[1] (€bn)	27.2	27.2	0.1
Equity[1] (€bn)	31.6	32.2	–1.8
Risk-weighted assets (€bn)	175.0	175.2	–0.1
of which : credit risk[2]	146.2	145.2	
of which : market risk[3]	8.9	10.2	
of which : operational risk	19.9	19.8	
Common Equity Tier 1 ratio (%)	13.7	13.6	0.7
Equity Tier 1 ratio (%)	15.6	15.5	0.6
Total capital ratio (%)	18.1	18.4	–1.6

[1] This information includes the consolidated profit attributable to Commerzbank shareholders for regulatory purposes.
[2] Includes settlement and delivery risks.
[3] Includes credit valuation adjustment risk.

The leverage ratio shows the ratio of Tier 1 capital in accordance with CRR, including the transitional provisions, to leverage ratio exposure, consisting of the non-risk-weighted assets plus off-balance-sheet positions.

	30.6.2022	31.12.2021	Change in %
Leverage Ratio Exposure (€bn)	589	521	13.1
Leverage Ratio (%)	4.6	5.2	–11.5

The NPE ratio is the ratio of non-performing exposures to total exposures according to the EBA Risk Dashboard.

	30.6.2022	31.12.2021	Change in %
NPE-ratio (%)	0.8	0.9	–11.1

(38) Related party transactions

As part of its normal business, Commerzbank Aktiengesellschaft and/or its consolidated companies engage in transactions with related entities and persons (for further information, see Annual Report 2021, p. 273f.).

Significant changes

The assets relating to entities controlled by the German federal government increased to €80.7bn as at 30 June 2022 (prior year: €31.6bn). This is largely attributable to the higher balance at Deutsche Bundesbank of €76.8bn (prior year: €27.7bn).

There were no other significant transactions or changes in transactions with related parties or companies during the period under review.

Boards of Commerzbank Aktiengesellschaft

Supervisory Board

Helmut Gottschalk
Chairman

Uwe Tschäge[1]
Deputy Chairman
Banking professional
Commerzbank Aktiengesellschaft

Heike Anscheit[1]
Banking professional
Commerzbank Aktiengesellschaft

Alexander Boursanoff[1]
Banking professional
Commerzbank Aktiengesellschaft

Gunnar de Buhr[1]
Banking professional
Commerzbank Aktiengesellschaft

Stefan Burghardt[1]
Project manager
Mittelstandsbank North/West
Commerzbank Aktiengesellschaft

Dr. Frank Czichowski
Former Senior Vice President / Treasurer
KfW Bankengruppe

Sabine U. Dietrich
Former Member of the Management Board
BP Europa SE

Dr. Jutta A. Dönges
Manager
Bundesrepublik Deutschland -
Finanzagentur GmbH

Monika Fink[1]
Banking professional
Commerzbank Aktiengesellschaft

Stefan Jennes[1]
(since 1.1.2022)
Banking professional
Commerzbank Aktiengesellschaft

Kerstin Jerchel[1]
Divisional Head Mitbestimmung
ver.di Bundesverwaltung

Burkhard Keese
Chief Operating Officer and
Chief Financial Officer
Lloyd´s of London

Alexandra Krieger[1]
Divisional Head Controlling Industrial Union
Mining, Chemical and Energy (IG BCE)

Daniela Mattheus
Lawyer and corporate advisor, Co-managing partner European Center for Board Efficiency

Caroline Seifert
Corporate advisor for transformation

Robin J. Stalker
Former Member of the Management Board
adidas AG

Dr. Gertrude Tumpel-Gugerell
Former Member of the Executive Board
European Central Bank

Frank Westhoff
Former Member of the Management Board
DZ Bank AG

Stefan Wittmann[1]
Trade Union Secretary ver.di National Administration

Klaus-Peter Müller
Honorary Chairman

[1] Elected by the Bank's employees.

Board of Managing Directors

Dr. Manfred Knof
Chairman

Dr. Bettina Orlopp
Deputy Chairwoman

Dr. Marcus Chromik

Michael Kotzbauer

Dr. Jörg Oliveri del Castillo-Schulz
(since 20.1.2022)

Thomas Schaufler

Sabine Schmittroth

Responsibility statement by the Board of Managing Directors

To the best of our knowledge, and in accordance with the applicable reporting principles for interim financial reporting, we confirm that the consolidated interim Group financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group, and that the interim Group management report provides a true and fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group for the rest of the financial year.

Frankfurt/Main, 1 August 2022
The Board of Managing Directors

Manfred Knof
Bettina Orlopp
Marcus Chromik

Michael Kotzbauer
Jörg Oliveri del Castillo-Schulz
Thomas Schaufler

Sabine Schmittroth

Review report

To COMMERZBANK Aktiengesellschaft, Frankfurt am Main

We have reviewed the condensed interim consolidated financial statements of COMMERZBANK Aktiengesellschaft, Frankfurt am Main, comprising the statement of profit or loss, condensed statement of comprehensive income, balance sheet, statement of changes in equity, statement of cash flows (condensed presentation), and the notes (selected explanatory notes) together with the interim group management report for the period from 1 January to 30 June 2022, that are part of the semi-annual financial report according to Section 115 of WpHG [Wertpapier-handelsgesetz: German Securities Trading Act]. The preparation of the condensed interim consolidated financial statements in accordance with International Accounting Standard IAS 34 "Interim Financial Reporting" as adopted by the EU, and of the interim group management report in accordance with the requirements of WpHG applicable to interim group management reports, is the responsibility of the Company's management. Our responsibility is to issue a report on the condensed interim consoli-dated financial statements and on the interim group management report based on our review.

We performed our review of the condensed interim consolidated financial statements and the interim group management report in accordance with the German generally accepted standards for the review of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the review so that we can preclude through critical evaluation, with a certain level of assurance, that the condensed interim consolidated financial statements have not been prepared, in material respects, in accordance with the IAS 34 "Interim Financial Reporting", as adopted by the EU, and that the interim group management report has not been prepared, in material respects, in accordance with the requirements of the WpHG applicable to interim group management reports. A review is limited primarily to inquiries of company employees and analytical assessments and therefore does not provide the assurance attainable in a financial statement audit. Since, in accordance with our engagement, we have not performed a financial statement audit, we cannot issue an auditor's report.

Based on our review, no matters have come to our attention that cause us to presume that the condensed interim consolidated financial statements have not been prepared, in material respects, in accordance with IAS 34, "Interim Financial Reporting" as adopted by the EU, or that the interim group management report has not been prepared, in material respects, in accordance with the requirements of the WpHG applicable to interim group management reports.

Frankfurt am Main, 1. August 2022
KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Wiechens	Böth
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Significant Group companies

Germany
Commerz Real AG, Wiesbaden

Abroad
Commerzbank Brasil S.A. – Banco Múltiplo, São Paulo
Commerzbank (Eurasija) AO, Moscow
Commerzbank Finance & Covered Bond S.A., Luxembourg
Commerzbank Zrt., Budapest
Commerz Markets LLC, New York
mBank S.A., Warsaw

Operative foreign branches
Amsterdam, Beijing, Bratislava, Brno (office), Brussels, Dubai, Hong Kong, London, Luxembourg, Madrid, Milan, New York, Paris, Prague, Shanghai, Singapore, Tokyo, Vienna, Zurich

Representative Offices and Financial Institutions Desks
Abidjan, Addis Abeba, Almaty, Ashgabat, Bangkok, Beijing (FI Desk), Beirut, Brussels (Liaison Office to the European Union), Buenos Aires, Cairo, Caracas, Dhaka, Dubai (FI Desk), Ho Chi Minh City, Istanbul, Johannesburg, Kiev, Lagos, Luanda, Melbourne, Milan (FI Desk), Minsk, Moscow (FI Desk), Mumbai, New York (FI Desk), Panama City, São Paulo (FI Desk), Seoul, Shanghai (FI Desk), Singapore (FI Desk), Taipei, Tashkent, Tblisi, Tokyo (FI Desk), Zagreb

The German version of this Interim Report is the authoritative version.

Disclaimer

Reservation regarding forward-looking statements
This interim report contains forward-looking statements on Commerzbank's business and earnings performance, which are based upon our current plans, estimates, forecasts and expectations. The statements entail risks and uncertainties, as there are a variety of factors which influence our business and to a great extent lie beyond our sphere of influence. Above all, these include the economic situation, the state of the financial markets worldwide and possible loan losses. Actual results and developments may, therefore, diverge considerably from our current assumptions, which, for this reason, are valid only at the time of publication. We undertake no obligation to revise our forward-looking statements in the light of either new information or unexpected events.

COMMERZBANK

2022/2023 Financial calendar	
9 November 2022	Interim financial information as at 30 September 2022
16 February 2023	Annual Results Press Conference
End March 2023	Annual Report 2022
17 May 2023	Interim financial information as at 31 March 2023
31 May 2023	Annual General Meeting
4 August 2023	Interim Report as at 30 June 2023
8 November 2023	Interim financial information as at 30 September 2023

Commerzbank AG
Head Office
Kaiserplatz
Frankfurt am Main
www.commerzbank.com

Postal address
60261 Frankfurt am Main
Tel.: + 49 69 136-20
info@commerzbank.com

Investor Relations
Tel.: + 49 69 136-21331
ir@commerzbank.com