



Financial Report 2023

Shaping transformation

As a bank committed to responsibility, KfW promotes sustainable prospects for people, companies, the environment and society.

KfW is one of the world's leading promotional banks. It applies its decades of experience to improve economic, social and environmental living conditions across the globe on behalf of the Federal Republic of Germany and the federal states. In 2023, KfW provided promotional funds totalling EUR 111.3 billion for this purpose. It has no retail branches and does not hold any customer deposits. To fund its business activities, KfW in 2023 raised around EUR 90 billion in the international capital markets, of which EUR 12.9 billion via "Green Bonds – Made by KfW". This makes KfW one of the world's largest issuers. In Germany, KfW Group has offices in Frankfurt am Main, Berlin, Bonn and Cologne. Its global network includes around 80 local and representative offices.

Key figures of KfW Group

Promotional business volume

	2023	2022
	EUR in billions	EUR in billions
	111.3	166.9

Key figures of the income statement

	2023	2022
	EUR in millions	EUR in millions
Net interest income (before promotional expense)	2,738	2,416
Net commission income (before promotional expense)	606	629
Administrative expense (before promotional expense)	1,547	1,509
Operating result before valuation (before promotional expense)	1,797	1,536
Risk provisions for lending business	165	-122
Net gains/losses from hedge accounting and other financial instruments at fair value through profit or loss	114	214
Net gains/losses from securities and investments and from investments accounted for using the equity method	33	41
Operating result after valuation (before promotional expense)	2,109	1,668
Net other operating income or loss (before promotional expense)	-14	1
Profit/loss from operating activities (before promotional expense)	2,095	1,669
Promotional expense	371	305
Taxes on income	165	-1
Consolidated profit	1,559	1,365
Consolidated profit before IFRS effects	1,347	1,183
Cost-income ratio (before promotional expense) ¹⁾	46.3%	49.6%

¹⁾ Administrative expense (before promotional expense) in relation to adjusted income. Adjusted income is calculated from net interest income and net commission income (in each case before promotional expense).

Key figures of the statement of financial position

	31 Dec. 2023	31 Dec. 2022
	EUR in billions	EUR in billions
Total assets	560.7	554.6
Volume of lending	599.1	607.0
Volume of business	724.4	709.6
Equity	38.1	36.6
Equity ratio	6.8%	6.6%

Key regulatory figures

	31 Dec. 2023	31 Dec. 2022
	EUR in billions	EUR in billions
Risk position	131.4	139.6
Tier 1 capital	36.6	34.9
Regulatory capital	36.7	35.1
Tier 1 capital ratio	27.9%	25.0%
Total capital ratio	27.9%	25.2%

Employees of KfW Group¹⁾

	2023	2022
	8,149	7,984

¹⁾ Average number of employees during the financial year

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The figures in tables were calculated exactly and added up.
Figures presented may not add to totals because of independent rounding.

Actual zero amounts and amounts rounded to zero are presented as EUR 0 million.

Letter from the Executive Board

Dear readers,

2023 was historic for KfW in the truest sense of the word, as it marked its 75th anniversary. We used this occasion to take a close look at issues of the future, engaging in dialogue with our employees, business partners, science and politics.



Stefan Wintels (Chief Executive Officer)

At the same time, 2023 was a year of normalisation and focusing of our business. After having faced particularly tough challenges in previous years in cushioning the economic consequences of the coronavirus pandemic and of the Russian attack on Ukraine, we were able to leave the path of acute crisis aid last year and focus more strongly again on strategic investments – for example for a resilient and competitive energy system.

2023 was also a year of implementing important goals in our strategic action areas of climate and environment as well as digitalisation and innovation. An example of this is the final closing of the Growth Fund in November 2023, which is an important component of the Future Fund managed by KfW Capital. The launch of the Growth Fund represents a milestone in the further development of the ecosystem for growth financing of young technology companies in Germany, as it is one of the largest venture capital fund of funds ever launched in Europe; it is mainly funded from private sources.

KfW has also achieved other important successes in the modernisation and digitalisation of its promotional business. For KfW's customers, this was most noticeable with the opening of the digital customer portal [meine.kfw.de](https://www.kfw.de). For the first time, they were able to prepare their loan applications digitally or apply for a grant by themselves in individual funding programmes. This creates an essential prerequisite for the efficient implementation of grant programmes in the future, in particular, subsidies with high volumes – such as the promotion, launched 27 February 2024, for heating systems on the basis of renewable energies in accordance with the Building Energy Act. At the same time, this brings KfW a significant step closer to its goal of becoming the digital transformation and promotional bank.



Katharina Herrmann

KfW new business volume remains at a high level

2023 was another very strong promotional year. At EUR 111.3 billion, new business volume was the third highest since 2020 (2022: EUR 166.9 billion). The downturn of EUR 55.6 billion compared to the exceptional year 2022 is primarily due to the decrease in crisis-related mandated transactions which mainly served to stabilise the energy supply, and thus reflects a normalisation process.

This also characterises new business in Germany, which reached a volume of EUR 77.1 billion (2022: EUR 136.1 billion). In addition to the declining mandated transactions, the significantly lower commitments in the Federal Funding for Efficient Buildings also had an impact. Here, the switch from broad-based promotion to focused promotion with more demanding promotional conditions led to a downturn to EUR 16.1 billion (2022: EUR 37.4 billion). New commitments in the promotional focus area of climate and environment amounted to EUR 11.2 billion.

KfW IPEX-Bank, which is responsible for the Export and project finance business sector, recorded an increase of 33% in new commitments amounting to

EUR 24.2 billion (2022: EUR 18.1 billion), the highest volume in its history. In this way, it made an outstanding contribution to supporting the German and European economy in a market environment still strongly characterised by challenges. This was achieved in particular by financing a number of onshore and offshore wind farms, photovoltaic systems as well as projects for battery cell production, the production of green hydrogen and green steel to transform the economy.



Melanie Kehr



Bernd Loewen

KfW Capital's commitments to start-ups and young, innovative technology companies in Germany increased significantly by 69% in 2023 to around EUR 2.1 billion (2022: EUR 1.3 billion).

Commitments in the promotion of developing countries and emerging economies reached a volume of just under EUR 10.9 billion. KfW Development Bank accounted for around EUR 9 billion. Despite ongoing global crises, the promotion of a sustainable transformation remains the focus of Financial Cooperation. KfW Development Bank supported projects in the area of climate and environmental protection with EUR 6 billion in 2023, which corresponds to a share of 67% of total new commitments. In the context of global climate action, the expansion of the German-Indian solar partnership with EUR 200 million and support for the environmentally sustainable and socially compatible reform of the energy sector in South Africa amounting to EUR 500 million should be highlighted. Under globally challenging conditions, DEG achieved a record volume of EUR 1.9 billion from its own funds (2022: EUR 1.6 billion) made available for private investments in developing countries and emerging economies. It was able to mobilise a further EUR 613 million from investors.

KfW Group consolidated earnings 2023

KfW generated consolidated profit of EUR 1.6 billion in the 2023 financial year. This resulted from a strong operating result, characterised by an increase in interest income. Despite the geopolitical and macroeconomic uncertainties, the valuation result contributed positively to the group's consolidated earnings. At EUR 371 million, promotional expense reached the highest value in the last ten years as the low-interest period had passed.

Risk-bearing capacity remains at a very high level

At the end of 2023, the regulatory equity ratios remained at a very good level with a total capital ratio and a (common equity) tier 1 capital ratio of 27.9% each, and thus significantly above the bank's overall regulatory requirement and risk strategy objectives. Compared to 2022, the ratio increased by around 2.8 percentage points, which is due both to the reduction in the total risk exposure amount and to the increase in regulatory capital compared to the previous year (31 December 2022: total capital ratio 25.2%, (common equity) tier 1 capital ratio 25.0%).

Business policy priorities in 2024

In a geopolitical and economic environment that continues to be turbulent and characterised by crises, we will set three priorities in our business policies for 2024:

1. With the financial support of the German Federal Government, we will make an effective contribution to the creation of sustainable and affordable housing.
2. In 2024, we will continue to strengthen both German SMEs and thus the backbone of our economic model, as well as the start-up scene as an essential factor of our future economic model.
3. On behalf of the German Federal Government, we are also contributing internationally to protecting our planet and improving the living conditions of people in those countries that are particularly affected by the consequences of climate change and the unequal distribution of wealth.



Christiane Laibach

In addition, we will continue to drive our own realignment. The focus here is, on the one hand, on mobilising private capital as an indispensable prerequisite for achieving the climate targets we have set for ourselves. On the other hand, we will continue to focus our financing on the 1.5-degree target. An essential element of this is the improved impact measurement of our promotion, which we are making great efforts to achieve.



Dr Stefan Peiß

KfW has a clear set of values

The crises of recent years, the increasing number of violent conflicts and also the challenges of the necessary sustainable change lead to uncertainties and increasingly difficult controversies in our society, too. We are concerned to see how anti-democratic, inhumane and extremist positions are increasingly finding their way into the centre of society.

KfW has a clear set of values. As Germany's large, globally active promotional bank, we are represented in around 80 countries around the world. People of many languages and cultures have worked closely with us for many years. Diversity and openness are at the core of our identity. We know from our 75 years of experience that diversity, openness and democracy are essential prerequisites for a good future. Therefore, the free and democratic basic order is and will remain the basis of our actions.



Stefan Wintels
(Chief Executive Officer)



Katharina Herrmann



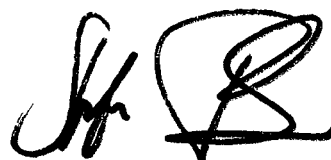
Melanie Kehr



Christiane Laibach



Bernd Loewen



Dr Stefan Peiß

Executive Board

Stefan Wintels (CEO)
Katharina Herrmann (since 08/04/2023)
Melanie Kehr
Christiane Laibach
Bernd Loewen
Dr Stefan Peiß

General Manager

Katharina Herrmann (until 07/04/2023)

Directors

Tim Armbruster	Dr Stephan Lauer
Dr Anke Brenken (since 01/01/2023)	Dr Susanne Maurenbrecher (since 01/11/2023)
Jörg Brombach	Jörg Menzel (since 01/01/2024)
Cecilia Fernández de Córdova (since 01/01/2024)	Andreas Müller
Andreas Fichelscher (until 30/04/2024)	Stephan Opitz
Dr Lutz-Christian Funke	Gaetano Panno
Helmut Gauges	Dr Ralf Prinzler
Werner Genter (until 31/12/2022)	Wolfgang Reuß
Dr Karsten Hardraht	Matthias Schwenk
Dr Andrea Hauser	Mirko Sedlacek
Detlev Kalischer	Birgit Spors
Verena Köttker	Robert Szwedó
Christian Krämer	Klaus Weirich
Dirk Kuhmann	Eva Witt

Members of the Management Board of KfW IPEX-Bank GmbH

Klaus R. Michalak (CEO and CFO) (until 31/03/2023)
Belgin Rudack (since 01/01/2023) (CEO and CFO since 01/04/2023)
Dr Velibor Marjanovic
Claudia Schneider (CRO)
Andreas Ufer

KfW IPEX-Bank is responsible for the Export and project finance business sector. Since the beginning of 2008, it has been a legally independent subsidiary of KfW which is subject to the German Banking Act (*Kreditwesengesetz – KWG*) and banking supervisory regulations.

Members of the Management Board of DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH

Roland Siller (CEO)
Monika Beck
Philipp Kreutz (until 30/04/2023)
Joachim Schumacher (since 01/05/2023)

DEG was founded in 1962 and has been a wholly-owned subsidiary of KfW Group since 2001. DEG is one of the largest European development finance institutions for long-term project and corporate financing. It has been financing and structuring investments by private companies in developing and emerging market countries for more than 60 years.

Members of the Management Board of KfW Capital GmbH & Co. KG

Dr Jörg Goschin
Alexander Thees

KfW Capital has been on the market as a venture capital fund investor since 2018. As a wholly-owned subsidiary of KfW, it invests in VC funds with support of the German Federal Government, which in turn finance start-ups and innovative technology companies in Germany.

Report of the Board of Supervisory Directors

Meetings of the Board of Supervisory Directors

The Board of Supervisory Directors and its committees constantly monitored the conduct of KfW's business activities and the management of its assets. It has taken the necessary decisions on the provision of financing and the conduct of other business in accordance with the conditions set forth in the KfW Law and Bylaws. The Board of Supervisory Directors, the Presidial and Nomination Committee and the Remuneration Committee each met three times in 2023 for this purpose; the Audit Committee met twice and the Risk and Credit Committee seven times.

At the meetings, the Board of Supervisory Directors acknowledged the information provided by the Executive Board on:

- KfW's 2022 annual and consolidated financial statements;
- the business activities and current developments in each of KfW's business sectors, including KfW IPEX-Bank, DEG and KfW Capital;
- the group's net assets, its general financial, earnings and risk position, and on sensitive risk areas in particular;
- banking supervisory issues relating to KfW, current consultations with the banking supervisory authorities, compliance with regulatory capital requirements, audits completed and ongoing, and the resulting measures, as well as potential effects of future regulatory changes;
- the impact of the Russian war on Ukraine and the general geopolitical situation in Europe and the Middle East;
- the implementation of the KfWplus strategic agenda with the advancement of KfW towards becoming the digital transformation and promotional bank;
- the activities and measures commemorating KfW's 75th anniversary; and
- the status of discussions with the Federal Government on alignment of the sector guidelines with the 1.5°C climate target and sectoral management of new business in line with the Paris climate targets – with a particular view to oil and gas.

In addition, the Board of Supervisory Directors addressed the following key issues based on the reports submitted by the Executive Board on the individual business sectors:

- With regard to **domestic promotional business** activities, the focus remained on housing, after restructuring of the promotional offering for particularly demanding energy efficiency projects. The Board of Supervisory Directors was also informed of KfW Capital's successful performance since it was established five years ago, and in particular also about the German Growth Fund. Other important topics included measures to mitigate the effects of the geopolitical situation, in particular, energy procurement and supply security. The Board of Supervisory Directors also addressed development of promotion for innovation and digitalisation for SMEs in Germany, and promoting business start-ups and succession.
- With regard to the **promotion of developing countries and emerging economies**, the Board of Supervisory Directors considered the key issues of Financial Cooperation, including KfW's involvement in Ukraine and the Middle East, as well as cooperation within the framework of global partnerships such as with the World Bank.
- As for KfW IPEX-Bank, i.e. the **Export and project finance** business sector, the focus was on the support the bank provides to German and European investors and exporters.



Dr Robert Habeck,
Federal Minister of Finance and Climate Action

- The Board of Supervisory Directors received regular reports on capital market development and KfW's funding status. KfW's funding on the capital market continued to be supplemented in the context of the special transactions carried out for the Federal Government from the Economic Stabilisation Fund ("WSF").
- The Board of Supervisory Directors also monitored KfW Group's environmental and sustainability commitment.

The Board of Supervisory Directors was informed at the meetings as well as every quarter, in writing, of the group's net assets, financial and earnings position, its risk situation, the development of its promotional business, and Internal Auditing's activity. The Executive Board also kept the Chair of the Board of Supervisory Directors and his deputy informed of key developments at the bank between meetings.

The Board of Supervisory Directors discussed key aspects of the business strategy and approved the planning for 2024. It acknowledged the multi-year business strategy, the risk strategy, and the IT strategy for the group and the individual group companies, as well as the Equal Opportunities Plan.

Each member of the Board of Supervisory Directors is obliged to inform the Chair of the Board of Supervisory Directors or of the relevant committee about potential conflicts of interest before a resolution is made. No material conflicts of interest were flagged during the reporting period. As a precautionary measure, there were nine instances in which members of the Risk and Credit Committee abstained from voting or refrained from participating in resolutions.

Six members of the Board of Supervisory Directors attended fewer than half of the board meetings in the reporting year. Two members of the Presidial and Nomination Committee attended fewer than half of the meetings; the same applied to member attendance at the meetings of the Remuneration Committee and the Risk and Credit Committee. One member attended fewer than half of the meetings of the Audit Committee.

Members of the Board of Supervisory Directors attended eight training events and ten individual training sessions organised by KfW in 2023 to gain and maintain the expertise required in accordance with the German Banking Act.

Committees of the Board of Supervisory Directors

In exercising its responsibilities prescribed in the Bylaws, the **Presidial and Nomination Committee** discussed Executive Board matters, in particular new appointments and reappointments. It resolved an updated redistribution of responsibilities, partly due to changes in the domestic funding department and in IT. In addition, the Presidial and Nomination Committee specified the orientation of KfW's basic business policy in line with the strategic guidelines for 2024.

It was also informed about banking supervisory issues, KfW Stiftung, construction activities and legal disputes. The Presidial and Nomination Committee regularly discussed the issue of dealing with potential conflicts of interest at Executive Board and Board of Supervisory Directors level. It conducted an evaluation of the KfW bodies, assessed the professional qualifications and composition of its members and made appropriate recommendations to the Board of Supervisory Directors. The Presidial and Nomination Committee also debated the status of promoting representation of the underrepresented gender on the Board of Supervisory Directors.

The **Remuneration Committee** discussed remuneration issues and the reports in accordance with the Remuneration Ordinance for Institutions (Institutsvergütungsverordnung - "IVV"). It was informed of the annual risk analysis to identify risk takers. As part of this risk analysis, KfW, both as an individual institution and at group level, has to identify staff members whose work could have a material impact on the risk profile of the institution/the group. The Remuneration Committee discussed the Executive Board remuneration system with external remuneration experts.

It made recommendations to the Presidial and Nomination Committee on the remuneration-relevant components of new Executive Board contracts in the context of Executive Board appointments. The group-wide remuneration strategy and the assessment base for variable employee remuneration were also discussed.

The Remuneration Committee was also informed about an employer positioning project and the key results of the group-wide employee survey.

The **Risk and Credit Committee** reviewed the commitments, equity investments, and intra-entity loans that must be presented to it under the KfW Law and KfW Bylaws as well as the scope of borrowings required by KfW for its funding and the related swap transactions necessary for hedging. It debated the effectiveness of the risk management system, the remuneration system, in particular with regard to the IVV, the report on shadow banks and measures to further develop the risk culture.

The committee discussed in detail the development of KfW's risk situation, including the impact of economic developments on risk provisioning, the consequences of the Russian war on Ukraine, the attack on Israel and the crisis in the Middle East, the development of the interest rate risk position in an environment of rising rates, stress tests and focus scenarios, ways to deal with equity investment risk, and default rates in the special coronavirus programme.

Furthermore, it analysed and discussed the performance of the cruise shipping portfolio, taking into account new propulsion technologies. The committee also addressed the Federal Government's guidance on dealing with financing in uncooperative countries and the issue of sensitive supply chains in the context of several loan financing programmes. It dealt with the further development and implementation of the Paris Agreement-compliant sector guidelines for KfW's new business and with information security risks, particularly with regard to increasing cyber risks.

The performance of the banking markets, particularly in the USA and Switzerland, the commercial real estate market situation, KfW's role in the project financing market and possible changes in the supervision of KfW IPEX-Bank were also considered.

The regulatory capital requirements of KfW and the requirements under Basel IV were also discussed. And lastly, the committee debated the risk strategy, including capital planning for the next few financial years.

The **Audit Committee** addressed the accounting process, KfW's net assets, financial and earnings position, the reports by Internal Auditing and Compliance and the annual financial statements of KfW Group 2022. It made corresponding recommendations to the Board of Supervisory Directors for the approval of the annual financial statements 2022 and the appointment of the auditor for 2024. Based on information supplied by the Executive Board, it discussed the efficiency of the risk management system, the internal control system ("ICS") and the internal audit system. In addition, it addressed auditor independence and audit quality, determined focal points of the 2023 financial statements audit and discussed the initial results of the 2023 financial statements audit (audit report part I). The committee approved the audit plan of the Internal Auditing department for 2024. It monitored banking supervisory issues and closely reviewed the banking supervisory assessments, along with the resulting measures and projects to remedy the findings. Lastly, the committee dealt with current developments in IT and was informed about future reporting in accordance with the Corporate Sustainability Reporting Directive ("CSRD").

The committee chairpersons reported to the Board of Supervisory Directors regularly on the work of the committees.

Changes on the boards

At the proposal of the Presidial and Nomination Committee, the Board of Supervisory Directors appointed Katharina Herrmann as a member of the Executive Board on 30 March 2023 with effect from 8 April 2023 and reappointed Bernd Loewen to the Executive Board on 6 December 2023 with effect from 1 July 2024.

In accordance with Article 7 (1) no. 1 of the KfW Law, in my capacity as Federal Minister of Finance and Climate Action, I assumed the position of Chair of the Board of Supervisory Directors for 2024 from my colleague Christian Lindner, Federal Minister of Finance.

Marion Höllinger, Prof. Dr Ulrich Reuter and Jan Wenzel Schmidt joined the Board of Supervisory Directors on 1 January 2024. Reiner Hoffmann resigned from the Board of Supervisory Directors with effect from 8 February 2023, and Yasmin Fahimi was appointed with effect from 24 May 2023. Dietmar Strehl resigned from the Board of Supervisory Directors with effect from 5 July 2022, and Björn Fecker was appointed with effect from 20 October 2023. Dr Bruno Hollnagel, Dr Hans-Walter Peters and Helmut Schleweis stepped down from the Board of Supervisory Directors at the end of 2023.

Yasmin Fahimi, Robert Feiger, Tanja Gönner, Stefan Körzell, Rainer Neske and Frank Schäffler stepped down and were reappointed according to schedule with effect from 31 December 2023. After the reporting period, Dr André Berghegger stepped down from the Board of Supervisory Directors with effect from 20 February 2024; Olav Gutting joined the Board with effect from 22 February 2024. The Board of Supervisory Directors would like to thank all the members who stepped down for their work.

Financial statements

Deloitte GmbH, which was appointed auditor for financial year 2023, has audited the annual financial statements, consolidated financial statements and the combined management report, all of which were prepared as of 31 December 2023 by the Executive Board, and issued an unqualified auditor's report thereon. The annual financial statements of KfW were prepared in accordance with the provisions of the German Commercial Code (HGB), and the consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS) as applicable within the European Union.

At its meeting on 21 March 2023, the Board of Supervisory Directors approved the financial statements and the consolidated financial statements, both of which were prepared by the Executive Board, as stipulated in Article 9 (2) of the KfW Law, following a recommendation by the Audit Committee.

Frankfurt am Main, 21 March 2024

THE BOARD OF SUPERVISORY DIRECTORS



Chair

Members and tasks of the Board of Supervisory Directors

The Board of Supervisory Directors supervises the conduct of KfW's business and the administration of its assets. It approves, among other things, the annual financial statements. The Board of Supervisory Directors consists of 37 members. In the year under review, the Chair was held by the Federal Minister of Finance, and the Deputy Chair by the Federal Minister for Economic Affairs and Climate Action.

Christian Lindner

Federal Minister of Finance
Deputy Chair
(since 1 January 2024)
Chair
(1 January – 31 December 2023)

Dr Robert Habeck

Federal Minister for Economic
Affairs and Climate Action
Chair
(since 1 January 2024)
Deputy Chair
(1 January – 31 December 2023)

Annalena Baerbock

Federal Foreign Minister

Katharina Beck

Member of the German Bundestag
Member appointed by the
German Bundestag

Dr André Berghegger

Former Member of the
German Bundestag
Member appointed by the
German Bundestag

Volker Bouffier

Former Minister President
of the State of Hesse
Member appointed by the
German Bundesrat

Dr Andreas Dressel

Senator for Finance of the Free
and Hanseatic City of Hamburg
Member appointed by the
German Bundesrat

Yasmin Fahimi

Chair of the German Trade Union
Confederation (DGB)
Representative of the trade unions
(since 24 May 2023)

Björn Fecker

Mayor and Senator for Finance of
the Free Hanseatic City of Bremen
Member appointed by the
German Bundesrat
(since 20 October 2023)

Robert Feiger

Chair of the Federal Executive
Committee of the IG Bauen-Agrar-
Umwelt trade union (IG Bau)
Representative of the trade unions

Tanja Gönner

Director General of the Federation
of German Industries (BDI)
Representative of industry

Gerald Heere

Minister of Finance of the State
of Lower Saxony
Member appointed by the
German Bundesrat

Prof. Dr. Hans-Günter Henneke

Managing Member of the Executive
Committee of the Federation
of German Districts
Representative of municipalities

Reiner Hoffmann

Former Chair of the German
Trade Union Confederation (DGB)
Representative of the trade unions
(until 8 February 2023)

Marion Höllinger

Member of the Board of Directors of
the Association of German Banks (BdB)
Representative of the commercial banks
(since 1 January 2024)

Dr Bruno Hollnagel

Former Member of the
German Bundestag
Member appointed by the
German Bundestag
(until 31 December 2023)

Verena Hubertz

Member of the German Bundestag
Member appointed by the
German Bundestag

Harald Hübner

Ministerial Director at the Bavarian
State Ministry of Finance and
Regional Identity
Member appointed by the
German Bundesrat

Dr Dirk Jandura

President of the Federation of
German Wholesale, Foreign Trade
and Services (BGA)
Representative of trade

Andrea Kocsis

Deputy Chair of ver.di – United
Services Trade Union
Representative of the trade unions

Stefan Körzell

Member of the Executive Board
of the German Trade Union
Confederation (DGB)
Representative of the trade unions

Ulrich Lange

Member of the German Bundestag
Member appointed by the
German Bundestag

Steffi Lemke

Federal Minister for the Environment,
Nature Conservation, Nuclear Safety
and Consumer Protection

Rainer Neske

Chair of the Board of Managing
Directors at Landesbank
Baden-Württemberg (LBBW)
Representative of industrial credit

Dr Marcus Optendrenk

Minister of Finance of the State
of North Rhine-Westphalia
Member appointed by the
German Bundesrat

Dr Bettina Orlopp

Deputy Chair of Commerzbank AG
Representative of the mortgage banks

Cem Özdemir

Federal Minister of Food
and Agriculture

Dr Hans-Walter Peters

Former President of the Association
of German Banks (BdB)
Representative of the commercial banks
(until 31 December 2023)

Achim Post

Member of the German Bundestag
Member appointed by the
German Bundestag

Daniel Quinten

Member of the Board of Managing
Directors of the National Association
of German Cooperative Banks (BVR)
Representative of the
cooperative banks

Prof. Dr Ulrich Reuter

President of the German Savings
Banks Association (DSGV)
Representative of the savings banks
(since 1 January 2024)

Michael Richter

Minister of Finance of the State
of Saxony-Anhalt
Member appointed by the
German Bundesrat

Joachim Rukwied

President of the German Farmers'
Association (DBV)
Representative of agriculture

Frank Schäffler

Member of the German Bundestag
Member appointed by the
German Bundestag

Jan Wenzel Schmidt

Member of the German Bundestag
Member appointed by the
German Bundestag
(since 1 January 2024)

Helmut Schleweis

President of the German Savings
Banks Association (DSGV)
Representative of the savings banks
(until 31 December 2023)

Svenja Schulze

Federal Minister for Economic
Cooperation and Development

Holger Schwannecke

Secretary General of the German
Confederation of Skilled Crafts (ZDH)
Representative of the skilled crafts

Dietmar Strehl

Senator for Finance of the
Free Hanseatic City of Bremen
Member appointed by the
German Bundesrat
(until 5 July 2023)

Dr Martin Wansleben

Chief Executive of the Association
of German Chambers of Commerce
and Industry (DIHK)
Representative of industry

Dr Kai H. Warnecke

President
Haus & Grund Germany
Representative of the housing industry

Dr Volker Wissing

Federal Minister for Digital and
Transport

Corporate Governance Report

As the promotional bank of the Federal Republic of Germany, KfW has committed itself to making responsible and transparent action comprehensible. The Executive Board and the Board of Supervisory Directors of KfW recognise the Public Corporate Governance Code (*Public Corporate Governance Kodex – “PCGK”*) of the Federal Republic of Germany. A declaration of compliance with the recommendations of the PCGK was issued for the first time on 6 April 2011. Since then, any potential deviations have been disclosed and explained on an annual basis.

KfW is a public law institution under the Law Concerning KfW (KfW Law). The KfW Law sets out KfW's main structural features. For example, KfW does not have a general shareholders' meeting. The shareholders are represented on the Board of Supervisory Directors of KfW and exercise control and shareholder functions (e.g. approval of the financial statements and adopting resolutions concerning the KfW Bylaws). The number of members, composition and duties of the Board of Supervisory Directors are set out in the KfW Law. The KfW Law also provides that the Board of Supervisory Directors is subject to legal supervision by the Federal Ministry of Finance in consultation with the Federal Ministry for Economic Affairs and Climate Action as well as to direct control of the Federal Audit Office (*Bundesrechnungshof*). The KfW Law in conjunction with the Regulation concerning key banking supervision standards under the German Banking Act (*Gesetz über das Kreditwesen – “KWG”*) to be declared applicable by analogy to KfW and supervision of compliance to these standards to be assigned to the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht – “BaFin”*) (KfW Regulation), dated 20 September 2013 (last amended 13 February 2023), further stipulates that KfW is subject to supervision by BaFin in collaboration with the Bundesbank.

Declaration of compliance

The Executive Board and Board of Supervisory Directors of KfW hereby declare: “Since the last declaration of compliance issued on 30 March 2023, the recommendations of the PCGK as amended (most recently on 13 December 2023), have been and will be fulfilled to the extent applicable to KfW as a public law institution with the exception of the following derogations:

D&O insurance excess

KfW has taken out D&O insurance for members of the Executive Board and the Board of Supervisory Directors, which – in derogation of clause 4.3.2 of the PCGK – does not include any policy excess.

Delegation to committees

The KfW Law sets out the size of the Board of Supervisory Directors at 37 members. To ease the work of the Board of Supervisory Directors, committees more specialised in the subject matter and flexible in terms of time are in place, and whose establishment is prescribed by law. In some cases, the committees not only prepare the decisions of the Board of Supervisory Directors but also – in derogation of clause 6.1.7 of the PCGK – make final decisions. This is done for reasons of practicality and efficiency. Pursuant to the KfW Bylaws, the Presidial and Nomination Committee and the Risk and Credit Committee have final decision-making authority. More details are provided in the Board of Supervisory Directors section under the descriptions of the respective committees.

In derogation of clause 5.4.3 of the PCGK, the Chair of the Presidial and Nomination Committee accepts information on Executive Board member conflicts of interest, in lieu of the Board of Supervisory Directors. Moreover, the Chair of the Presidial and Nomination Committee approves secondary employment of Executive Board members instead of the Chair of the Board of Supervisory Directors, in derogation of clause 5.4.4 of the PCGK.

Meetings of the supervisory body

In accordance with section 1 (1) sentence 2 of the rules of procedure of the Board of Supervisory Directors and its committees, the KfW Board of Supervisory Directors holds at least three instead of four meetings per calendar year, in derogation of clause 6.5 of the PCGK. This meeting frequency has proven to be successful in the past, was agreed with the legal supervisor and continues to be deemed appropriate. Due to the statutory size of the Board of Supervisory Directors and delegation of duties to the committees created, some of which involve final decision-making, three meetings per calendar year are deemed sufficient.

Cooperation between Executive Board and Board of Supervisory Directors

The Executive Board and Board of Supervisory Directors work closely together for the benefit of KfW. The Executive Board maintains regular contact with the Chair and Deputy Chair of the Board of Supervisory Directors and discusses important issues concerning the management of the bank and strategy with them. The Chair of the Board of Supervisory Directors informs the Board of Supervisory Directors of serious issues and, if necessary, convenes an extraordinary meeting.

During the reporting year, the Executive Board informed the Board of Supervisory Directors about all relevant matters regarding the bank's strategies, planning, development of business, profitability, risk situation, risk management, compliance, remuneration strategy, IT strategy, financial position, sustainable corporate governance and its implementation and results including relevant information on the group companies, transactions of particular importance to the profitability or liquidity of the company and changes in the economic environment significant to the company.

Executive Board

The Executive Board is responsible for managing the activities of KfW pursuant to the KfW Law, the KfW Regulation, the KfW Bylaws and the procedural rules for the Executive Board. A schedule of responsibilities stipulates business responsibilities within the Executive Board. The Executive Board requires the prior approval of the Presidial and Nomination Committee regarding significant changes to responsibilities within the Executive Board.

Responsibilities were temporarily redistributed as follows with effect from 1 January 2023 until 7 April 2023:

- Stefan Wintels – Chief Executive Officer, General Secretariat, Group Communications, Group Development and Economics, Legal, Internal Auditing, Financial Markets, Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*) and Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*), Domestic Marketing and Digital Channels, KfW Capital GmbH & Co. KG (KfW Capital) and Sustainability;
- Melanie Kehr – Information Technology, Transaction Management, and Portfolio Credit Service and New Business Credit Service;
- Christiane Laibach – KfW Development Bank, DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG), and Export and project finance (KfW IPEX-Bank GmbH, hereinafter KfW IPEX-Bank);
- Bernd Loewen – Accounting, Organisation and Consulting, Human Resources and Central Services;
- Dr Stefan Peiß – Risk Controlling, Credit Risk Management and Compliance.

The redistribution of responsibilities was adjusted with effect from 8 April 2023 when Katharina Herrmann joined the Executive Board:

- Stefan Wintels – Chief Executive Officer, General Secretariat, Group Communications, Group Development and Economics, Legal, Internal Auditing, Financial Markets, KfW Capital and Sustainability;
- Katharina Herrmann – Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*) and Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*), Domestic Marketing and Digital Channels;
- Melanie Kehr – Information Technology, Transaction Management and Operations (new business area since 30 May 2023, created by combining Portfolio Credit Service and New Business Credit Service);
- Christiane Laibach – KfW Development Bank, DEG, and Export and project finance (KfW IPEX-Bank);
- Bernd Loewen – Accounting, Organisation and Consulting, Human Resources and Central Services;
- Dr Stefan Peiß – Risk Controlling, Credit Risk Management and Compliance.

Executive Board members are obliged to act in the best interests of KfW, may not consider personal interests in their decisions, and are subject to a comprehensive non-competition clause during their employment with KfW. Executive Board members must inform their Board colleagues of any conflicts of interests prior to adopting resolutions and disclose them to the Chair of the Presidial and Nomination Committee without delay.

As of 31 December 2023, the proportion of women on the Executive Board was 50%, and the proportion of women in senior management (i.e. the two management levels below the Executive Board) was 29.7%.

Board of Supervisory Directors

The Board of Supervisory Directors supervises and advises the Executive Board in the management of the bank.

In accordance with the KfW Law, the Board of Supervisory Directors consists of 37 members. In accordance with the law, seven Federal Ministers are members of the Board of Supervisory Directors. In addition, the German Bundestag and Bundesrat appoint seven members each. The remaining members of the Board of Supervisory Directors are appointed by the Federal Government after consultation with stakeholder groups. The Federal Minister of Finance and the Federal Minister for Economic Affairs and Climate Action alternate on a yearly basis as Chair of the Board of Supervisory Directors. The Chair of the Board of Supervisory Directors in the reporting year was Federal Minister Christian Lindner from 1 January 2023 to 31 December 2023. There were nine female members on the Board of Supervisory Directors as of 31 December 2023.

No member of the Board of Supervisory Directors may have business or private dealings with KfW or its Executive Board members that are based on a substantial and more than temporary conflict of interests. Each member of the Board of Supervisory Directors informs the Chair of the Board of Supervisory Directors or the relevant committee of conflicts of interest before a resolution is adopted.

Six members of the Board of Supervisory Directors attended fewer than half of the board meetings in the reporting year.

Committees of the Board of Supervisory Directors

The Board of Supervisory Directors has created four committees in accordance with Section 25d KWG in order to increase efficiency in performance of its duties. They are listed below with their primary responsibilities, stipulated in the KfW Bylaws.

The **Presidial and Nomination Committee** is responsible for all business and corporate policy matters, as well as all legal and administrative matters. It approves important administrative matters of the Executive Board and legal matters of the Chair of the Board of Supervisory Directors with Executive Board members and makes urgent decisions on pressing matters within its scope of responsibility. The Presidial and Nomination Committee is also responsible for handling nominations. It draws up job descriptions with candidate profiles for Executive Board positions, identifies candidates, and proposes appointments to the Board of Supervisory Directors. It draws up job descriptions with candidate profiles for positions on the Board of Supervisory Directors, and can support the government bodies which make the appointments in selecting the individuals. It also ensures with the Executive Board that long-term succession planning is in place for the latter. The Presidial and Nomination Committee's tasks also include advising and adopting resolutions on the remuneration system for the Executive Board, including in respect of contract components and their regular review, notwithstanding the tasks of the Remuneration Committee. The Board of Supervisory Directors, on the other hand, decides on the basic structure of the Executive Board remuneration system.

The Presidial and Nomination Committee regularly (at least once a year) assesses the structure, size, composition and performance of the Executive Board and Board of Supervisory Directors and makes recommendations to the Board of Supervisory Directors. It also regularly (at least once a year) assesses the knowledge, skills and experience of the individual members of the Executive Board and Board of Supervisory Directors and of each body as a whole. It sets objectives for promotion of representation of the underrepresented gender on the Board of Supervisory Directors, develops a strategy to achieve them, and reviews the rules for selecting and appointing individuals to KfW senior management, providing recommendations to the Executive Board in this regard.

The **Remuneration Committee** deals with remuneration matters. It deals in particular with the appropriate structure of the remuneration system for the KfW Executive Board and employees and advises the Presidial and Nomination Committee on remuneration of the Executive Board members. It also monitors the proper involvement of the internal control and all other areas of relevance in structuring the remuneration systems.

The **Risk and Credit Committee** is responsible for advising the Board of Supervisory Directors on risk issues, such as, in particular, the group's overall risk tolerance and strategy. It examines whether the incentives offered by the remuneration system take into account KfW's risk, capital and liquidity structure as well as the probability and due dates of income. The Risk and Credit Committee is also responsible for handling credit matters, loans and financial guarantees without collateral, and approval of funding through the issue of bonds or taking out loans in foreign currencies and via KfW swap transactions, in some cases making final decisions, i.e. without involving the Board of Supervisory Directors. It is standard procedure at banks for the final decision in such matters to be taken by a committee. It serves to accelerate and bundle expertise in the committee.

The **Audit Committee** is responsible for accounting and risk management issues. In particular, it deals with monitoring the accounting process, the effectiveness of the internal controlling system, the internal audit system and risk management system, auditing the annual and consolidated financial statements, the required independence of the auditor, the quality of the audit, determining the focus areas of the audit, and monitoring the prompt elimination by the Executive Board of any deficiencies found by the auditor, Internal Auditing or financial regulators. The Audit Committee makes recommendations to the Board of Supervisory Directors concerning its approval of the annual and consolidated financial statements.

The chairs of the committees report to the Board of Supervisory Directors on a regular basis.

The Board of Supervisory Directors provides information about its work and that of its committees during the reporting year in its report. An overview of the members of the Board of Supervisory Directors and its committees is available on KfW's website.

As of 31 December 2023, the proportion of women on the Board of Supervisory Directors was 24.3%.

Shareholders

The Federal Government owns 80% of KfW's share capital, the German federal states 20%. In accordance with Article 1a of the KfW Law, the Federal Republic of Germany is liable for certain of KfW's liabilities. There is no profit distribution. The KfW Law does not require a general shareholders' meeting; the Board of Supervisory Directors performs the function of a general shareholders' meeting.

Supervision

In accordance with Article 12 of the KfW Law, KfW is subject to legal supervision by the Federal Ministry of Finance in consultation with the Federal Ministry for Economic Affairs and Climate Action. The supervising authority has the power to take all measures necessary to ensure that KfW operates its business activities in accordance with the law, the KfW Bylaws and other rules and regulations.

KfW is not considered a credit institution within the meaning of Section 2 (1) no. 2 KWG. The KfW Regulation dated 20 September 2013 (last amended 13 February 2023), however, declares central banking supervision regulations henceforth applicable by analogy to KfW, and subjects KfW to supervision by BaFin in collaboration with the Bundesbank regarding KfW's compliance with these regulations.

The group companies KfW IPEX-Bank and DEG are, on the other hand, credit institutions within the meaning of the KWG. KfW IPEX-Bank is subject to the provisions of the KWG in full, while DEG is subject to it with certain restrictions only. The group company KfW Capital is a medium-sized investment firm and subject in particular to the relevant regulatory requirements of the German Securities Trading Act (*Wertpapierhandelsgesetz – "WpHG"*) and the Investment Firm Act (*Wertpapierinstitutsgesetz – "WpIG"*).

Transparency

KfW provides all important information about the bank's annual and consolidated financial statements, the quarterly and semi-annual reports and the financial calendar on its website. Investor relations activities and corporate communications also involve regular announcements on the latest company developments. The annual corporate governance reports of KfW and the group companies KfW IPEX-Bank, KfW Capital and DEG including the declaration of compliance with the PCGK, are always available on KfW's website.

Risk management

Risk management and risk control are primary responsibilities of overall bank management at KfW. In its risk strategy, the Executive Board defines the framework for the bank's business activities regarding risk tolerance and risk-bearing capacity. This ensures that KfW fulfils its particular responsibilities with an appropriate risk profile effectively and for the long term. The bank's overall risk situation is subject to comprehensive analysis in monthly risk reports to the Executive Board. The Board of Supervisory Directors regularly receives detailed information on the bank's risk situation, at least once a quarter.

Compliance

Compliance at KfW includes, in particular, measures for data protection, securities compliance, financial sanctions, for the prevention of money laundering, terrorist financing and other criminal activities and to achieve adequate information security. There are therefore binding rules and procedures that influence the day-to-day implementation of values and the corporate culture and are continually updated to reflect current law as well as market requirements. Compliance's responsibilities also include collaboration with financial regulators BaFin and Bundesbank as well as the central function for compliance in accordance with the minimum requirements for risk management (MaRisk). Regular training sessions on all compliance issues are held for KfW's employees. E-learning programmes are available in addition to classroom seminars.

Accounting and auditing

As the supervisory authority, the Federal Ministry of Finance in consultation with the Federal Audit Office appointed Deloitte GmbH Wirtschaftsprüfungsgesellschaft as auditor for financial year 2023 on 27 July 2022. The appointment was based on the proposal made by KfW's Board of Supervisory Directors on 6 April 2022. The Audit Committee prepared the recommendation. The bank and the auditor agreed that the Chair of the Audit Committee would be informed without delay of any findings and incidents discovered during the audit that are significant to the duties of the Board of Supervisory Directors. It was furthermore agreed that the auditor would inform the Audit Committee Chair and remark in the auditor's report if it noticed any facts in performing the audit that represent misstatements in the declaration of compliance with the PCGK. The audit engagement also included verification that the declaration of compliance with the PCGK was submitted and published in the Corporate Governance Report (clause 8.2.4).

Efficiency review of the Board of Supervisory Directors

Since Section 25d (11) KWG became applicable as of 1 July 2014, the Presidial and Nomination Committee has been required to evaluate the efficiency of both the Board of Supervisory Directors and the Executive Board on an annual basis. Both evaluations are performed on a yearly basis, most recently in June 2023.

Sustainability / non-financial report / fair taxation

As a digital transformation and promotional bank, KfW pursues sustainable corporate governance in line with Germany's National Sustainable Development Strategy and thereby contributes to achieving the UN Sustainable Development Goals ("SDGs") and to fulfilling the Paris Agreement on climate change and the Kunming-Montreal Global Biodiversity Framework ("GBF"). KfW Group's strategic efforts in sustainable financing are mainly focused in the "tranS-Form" project and in a project to develop a group-wide biodiversity strategy. The main components of tranSForm are the expansion of the impact management system, ensuring the 1.5°C compatibility of KfW's financing activities, developing a greenhouse gas accounting system and even stricter inclusion of ESG risk factors in KfW's risk management.

In exchange with its stakeholders, KfW also continues its preparation for group-wide application of the EU taxonomy and the new EU directive on sustainability reporting. The annual sustainability report in accordance with the Global Reporting Initiative ("GRI") standards includes reporting in accordance with the Task Force on Climate-related Financial Disclosures ("TCFD") and information on human rights issues, such as the requirements of the Supply Chain Act (*Lieferkettensorgfaltspflichtengesetz* – "LkSG"). KfW Group also publishes its declaration of compliance with Germany's Sustainability Code (*Deutscher Nachhaltigkeitskodex* – "DNK") every two years.

As a state-owned promotional bank, KfW is subject to a specific fiscal regime and is partially tax-exempt. In contrast, unlike KfW itself, KfW's subsidiaries are fully or partially subject to income tax. Full compliance with all national and international tax laws is part of sustainable corporate governance at KfW and is set out in the bank's tax mission statement and code of conduct. KfW Group does not develop or support any tax models aimed exclusively at achieving tax advantages or reductions. In particular, KfW Group does not use or support any artificial tax schemes. It engages in open, transparent and cooperative interaction with domestic and foreign tax authorities.

Diversity and equal opportunities / Inclusion

Diversity and equal opportunities are a matter of course for KfW. Discrimination based on nationality, ethnic origin, gender, religion, fundamental beliefs, disability, age or sexual orientation is prohibited. This is set out in KfW's Code of Conduct, as well as in the binding targets for a balanced proportion of men and women at all management levels in KfW's Equal Opportunities Plan. To underpin its commitment to a diverse workforce, KfW signed the Diversity Charter in 2019, implementing it through a variety of internal and external measures.

KfW includes people with disabilities in line with the UN Convention on the Rights of Persons with Disabilities. KfW has embedded the convention's goals in its Inclusion Agreement, which was concluded between the general representative for those with severe disabilities for KfW and KfW's General Staff Council. In spring of 2021, KfW set a binding target of a 6%-quota of employees with disabilities. This target is accompanied by comprehensive measures to recruit employees with disabilities (e.g. posting job advertisements on target group-specific job platforms, such as myAbility.jobs, cooperating with a number of associations and organisations, as well as with a working group on establishing physical and digital accessibility).

Mobile working / work-life balance

Striking a balance between work and personal life is key to staff remaining healthy and actively employed. This approach forms the basis of KfW's strategically designed, family-friendly personnel policy. KfW helps its employees to balance their work and personal lives as well as possible, each in their own unique ways. To this end, it offers them a broad range of part-time working models, and significantly expanded mobile working in 2020.

Remuneration / equal pay

The collective bargaining agreements for the public and private banking sector concluded by the Association of German Public Banks (*Bundesverband Öffentlicher Banken Deutschlands – "VÖB"*) apply to KfW employees subject to collective bargaining, by classification in pay scale groups. Employment contracts of employees not covered by collective bargaining agreements contain provisions in line with the main working conditions of the VÖB master collective agreement (in particular working hours and leave entitlement), to ensure a coherent remuneration level. KfW supports the policies by means of staff agreements. Similar policies on collective and individual contractual bases are also in place for employees of the other KfW Group companies. KfW is expressly committed to fair, transparent and non-discriminatory remuneration principles and to the same standards for the evaluation process.

All KfW employees have been able to assert their right to access information in accordance with Section 10 of the German Transparency of Remuneration Act (*Entgelttransparenzgesetz*) since 2018. All KfW Group companies have implemented this legislative requirement to the extent applicable.

In awarding contracts for services, KfW also ensures that applicable collective bargaining and statutory provisions on the remuneration of service providers are observed.

Frankfurt am Main, 21 March 2024

The Executive Board

The Board of Supervisory Directors

Combined Management Report

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Basic information on KfW Group

The KfW management report is combined with the group's management report in accordance with Section 315 (5) in conjunction with Section 298 (2) of the German Commercial Code (*Handelsgesetzbuch – "HGB"*). The combined management report is included in the KfW Group financial report and is submitted to the German Company Register for publication.

The KfW annual financial statements prepared in accordance with the German Commercial Code and the group financial report are also available online at www.kfw.de.

Information on KfW as the parent company can be found under a separate section, "Notes to the KfW annual financial statements prepared in accordance with the German Commercial Code".

The KfW consolidated financial statements were prepared in accordance with the provisions of Section 315e HGB in conjunction with the International Financial Reporting Standards (IFRS) as applicable within the European Union. With the exception of the HGB information in the section "Notes to the KfW annual financial statements prepared in accordance with the German Commercial Code", all financial figures in this combined management report, including the comparative figures for the previous year, are reported in accordance with IFRS.

KfW's business model

KfW is a promotional bank of the Federal Republic of Germany in the legal form of a public law institution. The Federal Government owns 80% of KfW's share capital and the German federal states own the remaining 20%. KfW is subject to the Law Concerning KfW (*KfW-Gesetz – "KfW Law"*), which defines its functions and sets out the requirements for KfW's operating activities. This set of functions is defined in Article 2 of the KfW Law and represents the implementation of Understanding II, which was reached with the European Commission. KfW's functions include the carrying out of its promotional business, related transactions and mandated transactions. Because of its special business model, comparing KfW with commercial banks is only possible to a very limited extent.

KfW's primary and core statutory objective is its promotional business, in accordance with Article 2 (1) of the KfW Law. It consists of promotional measures, particularly in the form of financing for SMEs, the liberal professions and business start-ups, venture capital, housing, environmental protection, infrastructure, technical progress and innovation, internationally agreed promotional programmes and development cooperation. The promotional business also involves financing regional and local authorities and special-purpose associations under public law (*öffentlich-rechtliche Zweckverbände*), measures with purely social objectives and for the promotion of education. Moreover, project financing is part of KfW's promotional business, as far as it is co-financed by European financing institutions in the interest of the European community, as well as export financing outside the European Union ("EU")/European Economic Area ("EEA") or in countries with official status as candidates for EU accession, provided that such funding is carried out on a syndicated basis or that there is insufficient financing available in the relevant countries.

Where these operations are directly related to the fulfilment of its promotional tasks, KfW may also conduct additional transactions in accordance with Article 2 (3) of the KfW Law (related transactions). These include KfW's refinancing and treasury management measures, as well as the refinancing of KfW IPEX-Bank GmbH ("KfW IPEX-Bank") in line with market conditions. KfW may only engage in other transactions if these are expressly mandated by the German Federal Government on a case-by-case basis in accordance with Article 2 (4) of the KfW Law (mandated transactions). Pursuant to Article 2 (3) sentence 3 of the KfW Law, KfW is expressly prohibited from engaging in financial commission business and deposit business with the general public; therefore, KfW refinances its lending business via the capital markets, primarily by issuing bonds.

In structuring its business activities, KfW follows the principle of subsidiarity and functions as a countercyclical bank offering structure and stability. It is therefore primarily active in the areas where market mechanisms alone would lead to socially or economically disadvantageous results. KfW's offering is designed to avoid distorting the market. Generating a profit is merely a secondary objective to ensuring risk-bearing capacity and carrying out statutorily mandated tasks. KfW's business model as a promotional bank without a primary profit-making objective and without a trading book is a key factor in its fundamentally conservative risk culture and balance sheet structure.

In accordance with the retention requirement (Article 10 (1) of the KfW Law), there is no distribution of net profit to KfW shareholders. The annual net profit resulting after depreciation, amortisation and provisions is to be allocated to a statutory reserve. These funds are available to strengthen the binding regulatory capital ratios and can be re-deployed for promotional purposes subject to these ratios being met. This means that the funds remain in the promotional cycle.

In carrying out its transactions, KfW is subject to the requirement of competitive neutrality in cooperating with commercial banks. The remit, as defined in the KfW Law in implementation of Understanding II reached with the European Commission, ensures that KfW does not enter into significant competition with commercial banks. An on-lending principle is generally applied in the core domestic promotional business areas (Article 3 (1) of the KfW Law). Derogations therefrom may be made with approval of the Board of Supervisory Directors. The on-lending principle means that credit institutions or other financing institutions are involved in granting financing, enabling final borrowers to receive "KfW" loans in the legal form of loans from their own primary bank, which in turn refinances such operations via KfW. Therefore, KfW does not need to operate a branch network to sell its products. The on-lending principle applies exclusively in the promotional areas pursuant to Article 2 (1) no. 1 a) to f) of the KfW Law, with the particular exception of financing for municipalities, for purely social purposes and for education.

Based on what is referred to as institutional liability (Anstaltslast), the Federal Republic of Germany is obliged to safeguard or maintain KfW's economic basis, thereby ensuring KfW's ability to function. Moreover, KfW's primary obligations are secured by a direct guarantee from the Federal Government in accordance with Article 1a of the KfW Law. Consequently, KfW's rating currently benefits from the Federal Republic of Germany's excellent country rating. The resulting funding conditions support KfW's operating activities in setting promotional incentives.

The federal guarantee and its ownership structure mean that KfW is designated as a public sector entity pursuant to Article 4 (1) no. 8 CRR. This enables the utilisation of the exemption under Article 116 (4) CRR, by which creditors of exposures to KfW can apply a risk weight of 0% to an instrument covered by the federal guarantee.

KfW is subject to legal supervision by the Federal Government, which is exercised by the Federal Ministry of Finance in consultation with the Federal Ministry for Economic Affairs and Climate Action. As a public law institution, KfW is subject to regular audits by the Federal Audit Office. With regard to compliance with the provisions of the German Banking Act (*Kreditwesengesetz* – "KWG") applicable in accordance with the KfW Regulation, KfW is subject to supervision by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – "BaFin") and the Bundesbank. However, KfW is neither a credit institution, nor a financial services institution within the meaning of the KWG, nor a credit institution within the meaning of CRD V.

KfW promotes the transformation of the economy and society with the aim of improving economic, environmental and social living conditions around the world, with an emphasis on Germany. The focus of the group's promotional activities is on the promotional areas anchored in KfW's strategic objectives. A variety of financing products and services

are geared, in particular, to the promotional areas of climate change and environment, digitalisation and innovation, globalisation, social change, and financing of small and medium-sized German enterprises (“SMEs”). In this context, KfW will pursue a core element of its transformation agenda, KfWplus, by “managing impact” & “mobilising private capital”. To ensure a sustainable impact, KfW endeavours to strike a balance in the economic, environmental and social dimensions of sustainability in all promotional areas.

Group structure

In line with its products and services, KfW Group is divided into the following business sectors: Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*), Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*), KfW Capital, KfW Development Bank, DEG, Export and project finance, Financial markets and Head office, to which the main products and services are attributed as follows:

Mittelstandsbank & Private Kunden (<i>SME Bank & Private Clients</i>)	<ul style="list-style-type: none"> – Start-up financing – Financing of general corporate investments and investments in innovation, energy and environmental protection – Education financing – Financing for housing construction, conversion and refurbishment
Individualfinanzierung & Öffentliche Kunden (<i>Customised Finance & Public Clients</i>)	<ul style="list-style-type: none"> – Financing of municipal and social infrastructure – Customised corporate financing with equity and debt capital – Customised financing of banks and promotional institutions of the federal states (“LFI”) – Mandated transactions for energy suppliers (debt capital)
KfW Capital	<ul style="list-style-type: none"> – Investments in German and European venture capital and venture debt funds
Export and project finance	<ul style="list-style-type: none"> – Financing of German and European export activities – Financing of projects and investments which are of special interest for Germany and Europe
KfW Development Bank	<ul style="list-style-type: none"> – Promotion of developing countries and emerging economies on behalf of the Federal Government with budget funds and complementary market funds raised by KfW
DEG	<ul style="list-style-type: none"> – Financing provided by DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH in developing countries and emerging economies (private enterprise financing)
Financial markets	<ul style="list-style-type: none"> – Securities and money market investments – Holding arrangements for the Federal Republic of Germany – Transactions mandated by the Federal Government, loan granted to Greece – Funding
Head office	<ul style="list-style-type: none"> – Central interest rate and currency management – Strategic equity investments

In addition to KfW (that is, the business sectors Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*), Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*), KfW Development Bank, Financial markets and Head office), the group includes six consolidated subsidiaries. The main operational subsidiaries are KfW IPEX-Bank (responsible for the business sector Export and project finance), DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG) and KfW Capital GmbH & Co. KG (KfW Capital).

KfW IPEX-Bank addresses the global lending business in Export and project finance that is not part of KfW's promotional activities and that is subject to competition in the financial services sector. In addition to its own market business, KfW IPEX-Bank manages the fiduciary business conducted on behalf of and for the account of KfW under an agency agreement. KfW IPEX-Bank is subject to the KWG and banking supervisory regulations.

DEG is one of the largest European development finance institutions for long-term financing in the private sectors of developing countries and emerging economies. DEG operates alongside other financial institutions and provides funding to companies where funding is not offered by the market at all, or not to a sufficient degree. With its financing and advisory services focussed on impact and/or the climate, DEG promotes sustainable local development and thereby contributes to the UN's Sustainable Development Goals ("SDGs") and the goals of the Paris Agreement on climate change.

KfW Capital, represented by KfW Capital Verwaltungs GmbH, is responsible for equity financing as part of the domestic promotional business. KfW Capital invests in venture capital and venture debt funds, which in turn invest in innovative technology-orientated companies in the start-up and growth phases, with activities focused in Germany and in Europe, thereby strengthening these companies' capital base. In addition to its own market business taken at its own risk, KfW Capital manages Federal Government funds on a fiduciary basis. KfW Capital also functions as KfW's agent for KfW's equity investments in funds, which it enters into on a fiduciary basis for the Federal Government.

Composition of KfW Group Total assets (IFRS, before consolidation)

	Total assets as of 31 Dec. 2023	Total assets as of 31 Dec. 2022
	EUR in millions	EUR in millions
KfW, Frankfurt am Main, Germany	555,731	550,505
Subsidiaries		
KfW IPEX-Bank GmbH, Frankfurt am Main, Germany	32,797	27,643
DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne, Germany	8,290	7,817
KfW IPEX-Beteiligungsholding GmbH, Frankfurt am Main, Germany	3,194	3,212
KfW Capital GmbH & Co. KG, Frankfurt am Main, Germany	1,024	908
Interkonnektor GmbH, Frankfurt am Main, Germany	284	316
KfW IPEX-Bank Asia Ltd., Singapore (IPEX Asia)	15	13
	Total assets as of 30 Sep. 2023	Total assets as of 30 Sep. 2022
Microfinance Enhancement Facility S.A., Luxembourg (18.5%), Luxembourg	570	695
Green for Growth Fund, Southeast Europe S.A., Luxembourg (13.3%), Luxembourg	808	732
coparion GmbH & Co. KG, Cologne (16.4%), Germany	362	359
	31 Dec. 2022	31 Dec. 2021
DC Nordseekabel GmbH & Co. KG, Bayreuth (50.0%), Germany	856	854

The development of the group's operating income is determined by KfW.

Strategic objectives 2028

In view of the challenges of the current decade, KfW Group has set up its strategic transformation agenda KfWplus, which points the way for tackling these challenges. KfWplus defines four core elements: (1) "Climate & Environment", (2) "Digitalisation & Innovation", the promotion of which is to be strengthened, as well as (3) "Managing impact & mobilising private capital" and (4) "Top-performing KfW", in order to achieve KfW Group's promotional objectives in the best possible way. On the basis of this strategic transformation agenda KfWplus, KfW's goal of becoming THE digital transformation and promotional bank shall be achieved. The **strategic objectives** are consistent with KfWplus and implement the control components, which are intended to enable comprehensive control and the achievement of targets. To this end, the strategic objectives define KfW's targeted medium-term positioning. This strategic framework encompasses top-level objectives at group level and serves as a central and binding reference for the strategic orientation of all business sectors, with a five-year horizon. The strategic objectives for 2028 were adopted in 2023.

KfW's **primary objective**, or purpose, is sustainable promotion, which means KfW aims to transform the economy and society to improve economic, environmental and social living conditions around the world. This primary objective is supported by the two promotional principles of subsidiarity and sustainability.

Subsidiarity means that KfW focuses on compensating for market weaknesses. Putting this principle into practice, KfW Group strives to maintain high-quality promotional activities and to mobilise private capital, to ensure that the goal of transforming the economy and society is achieved.

With regard to the principle of sustainability, KfW aims to achieve a ranking among the top three within a "best of the best" group of KfW peers, comprising national and international promotional and development banks with the best ESG ratings from the agencies relevant to KfW (Sustainalytics, ISS ESG, MSCI).¹⁾ In addition, the contributions of KfW's financing activities to the UN's Sustainable Development Goals ("SDGs") and to 1.5°C compatibility are monitored as part of fulfilling international climate goals.

Within the framework of these promotional principles, KfW finances projects under the motto "promoting transformation – boosting resilience" in support of the dual transformation – the key challenge of this decade. This means further expanding the promotional areas of climate change and the environment (environmental share of financing >38%), and digitalisation and innovation (digitalisation and innovation share of financing >10%), which are of key relevance according to KfWplus. Promotional activities linked to globalisation and social change, moreover, continue to be ongoing tasks for KfW. In domestic promotion, KfW still aims to achieve an SME ratio of >40% in its financings.

The primary objective, or purpose, is complemented by **secondary objectives** in the areas of digitalisation, agility and innovation, operating model and governance, and customer and employee centricity, which help to maintain and support a top-performing KfW.

Internal management system

KfW Group has an integrated strategy and planning process. Conceived as a group-wide strategy process, group business sector planning is KfW Group's central planning and management tool. Group business sector planning consists of three consecutive sub-processes performed every year: defining objectives, implementation and quality assurance, and finalisation. The overall strategy and planning process includes the collaboration of staff responsible for planning in all areas.

Objectives: The KfWplus transformation agenda and the strategic objectives derived from it, both of which are set by the Executive Board, form the basis for strategic planning. These strategic objectives serve as a roadmap for KfW Group, laying out the direction in which KfW would like to develop over the next five years. They define KfW Group's medium-term targeted positioning and set top-level objectives for the entire bank. The strategic objectives are reviewed annually for relevance, completeness and aspiration level and are adjusted where necessary – for example, due to changed parameters or newly determined focus areas. Efforts are made, however, to maintain a high degree of consistency to ensure that there are no fundamental changes made to the strategic road map in the course of the annual review. A business strategy scenario analysis is conducted in parallel. A scenario analysis is a "what if" analysis of a specific, plausible scenario, looking at the interaction of exogenous influencing factors and translating the results of the analysis. Such scenarios assist in the process of identifying potential risks and opportunities for promotional

¹⁾ Further information on ESG ratings can be found in the KfW Group Sustainability Report. It can be accessed via the following link: <https://www.kfw.de/microsites/Microsite/nachhaltigkeitsbericht.kfw.de/en/>

targets and KfW Group's profitability and risk-bearing capacity, and enable these factors to be considered in the further planning process, if necessary. Within this strategic framework and the strategic focus areas set by the Executive Board, major medium-term projects relevant throughout the bank (bank backlog projects) are developed in a base case scenario by the business sectors, subsidiaries (taking into account their statutory requirements) and business areas. Assumptions regarding the future development of both relevant external factors (including market development, regulatory requirements, climate policy and climate scenarios, the competitive situation and customer behaviour) and internal factors and resources (including human, technical and organisational resources, promotional expense, primary cost planning and tied-up capital) as well as targeted earnings levels, are made based on a risk and opportunity assessment. Promised benefits (such as project efficiencies) are also considered in business sector planning. This analysis involves an evaluation of the key business and revenue drivers for each group business sector, as well as for the group as a whole. The business sectors are also called upon to address the environmental, social and governance risks ("ESG" risks) resulting from their business activity and new projects. As risk drivers, these can have a considerable impact on the likelihood of occurrence or the extent of typical banking risk types. Although ESG risks primarily affect the lending and equity finance business of KfW Group, they can also potentially give rise to consequential risks, such as reputational risk. The central departments (e.g. information technology, human resources and central services) play important roles in achieving the strategic objectives. By involving these departments, their own strategies are aligned with the strategic objectives.

The first regular capital budget in the base case is prepared on a multi-year horizon on this basis. In this way, any capital bottlenecks resulting from strategic considerations or changed parameters can be identified at an early stage and mitigated by resolving and implementing appropriate measures. The Executive Board defines top-down objectives for all business sectors (with regard to promotion, risk and finances) and departments (staffing in the form of full time equivalents ["FTEs"] and costs) for the entire planning period based on the assessment and prioritisation of all new and ongoing bank backlog projects through the annual business review ("ABR").

Implementation and quality assurance: The business sectors plan their new business, risks and earnings, and each department its budgets, and staffing in the form of FTEs, based on the top-down objectives defined by the Executive Board, taking into account any changes in external or internal factors and in close collaboration with Financial and Risk Controlling. These plans are checked for consistency with the objectives of the group and the business sectors/departments. The interest rate forecast plays a key role in shaping KfW Group's earnings position. Hence, both a high and a low interest rate scenario are examined in addition to the anticipated base case. The plans are also assessed for future risk-bearing capacity in a second round of regular capital budgeting in a base and stress case over a multi-year horizon.

Finalisation: The Executive Board approves the resulting budget or has plans fine-tuned in a revision round, if necessary. The key conclusions from the planning process are incorporated into the business and risk strategies. The management has overall responsibility for formulating and adopting both strategies. The business strategy comprises the group's strategic objectives for its main business activities as well as important internal and external factors, which are included in the strategy process. It also contains the business sectors' contribution to the strategic objectives and the measures for achieving each objective. Moreover, the business strategy combines the budget at the group and business sector levels. The Executive Board sets out KfW Group's risk policies in its risk strategy, which is consistent with the business strategy. The risk strategy is based on the overarching aim of ensuring risk-bearing capacity and liquidity for the long term. Group business sector planning is used to review and redetermine risk appetite. The main risk management approaches are also incorporated into the risk strategy as a basis for operational risk management. The group business sector planning process ends when the Executive Board has adopted a final budget for the entire planning period, including the future capital requirement and the business and risk strategies. The budget is then presented to the supervisory body (Board of Supervisory Directors) for approval, along with the business and risk strategy for discussion. After the Board of Supervisory Directors has decided on the business and risk strategy, it is communicated to the staff in an appropriate manner. In contrast, the result from the valuation of derivatives, which KfW concludes solely for hedging purposes, is not included in the planning, as, in light of the complex causal relationships which affect the recording of derivatives at fair value in connection with KfW's funding activities, it is not controllable and plannable. The temporary effects on results from the valuation of relevant closed items included in the actual figures are reported separately in internal reporting and in the management report as alternative key financial figures.

The adoption of the business sector planning serves as a foundation for the group's qualitative and quantitative objectives. The Executive Board reviews target achievement both on a regular and on an ad hoc basis during each financial year. The assumptions concerning external and internal factors made when determining the business strategy are also subject to regular checks. The development of relevant control variables, their attainment, and the reasons for any shortfalls are analysed as part of strategic management. Strategic assumptions are reviewed, and a systematic variance analysis of early objectives and forecasts is performed at the beginning of every year. Ad hoc issues of strategic relevance are also addressed in consultation with the group's departments, and recommendations for action concerning potential strategy adjustments or optimisation of the use of resources are made to the Executive Board by means of the strategic performance report. The results of the analysis are included in further strategy discussions and strategic planning processes. At mid-year, the integrated forecasting process serves as a comprehensive basis for interim management input on quantitative group variables of strategic importance in line with the strategic objectives (new business, risk and earnings in respect of funding opportunities), while providing a well-founded guide to achieving planned objectives. The achievement of objectives is regularly monitored by the Board of Supervisory Directors based on reports submitted under the KfW Bylaws. The commentary in these reports outlines analyses of causes and any potential plans for action. Detailed reports are prepared on a monthly or quarterly basis as part of financial controlling. These comprehensive detailed analyses at group and business sector level comprise earnings and cost developments and are reported to specific departments. Additionally, analyses of significant relevance to overall group performance are also presented directly to the Executive Board. Early warning systems have been established and mitigation measures defined for all material risk types in line with the risk management requirements set out in the risk strategy. All controlling and monitoring approaches are integrated into regular risk reporting to the Executive Board. The Board of Supervisory Directors receives a risk report on a quarterly basis.

Alternative key financial figures used

The combined management report contains financial figures that are neither defined in the HGB nor the IFRS accounting standards. In its strategic objectives, KfW uses key indicators prescribed by accounting standards and supervisory regulations as well as key figures that are geared towards promotion as the core business activity. It also uses key figures in which the temporary effects on results determined and reported in the consolidated financial statements in accordance with IFRS, and which KfW does not consider representative, are adjusted.

KfW has defined the following alternative key financial figures:

Promotional business volume

Promotional business volume refers to the commitments of each business sector during the reporting period. In addition to the lending commitments shown in the statement of financial position, promotional business volume comprises loans from Federal Government funds for promotion of developing countries and emerging economies – which are accounted for as trust activities – financial guarantees, equity financing and securities purchases (in the green bonds asset class). Promotional business volume also includes grants committed as part of development aid and in domestic promotional programmes. Allocation to the promotional business volume for the current financial year is generally based on the commitment date of each loan, financial guarantee and grant, and the transaction date of the equity finance and securities transactions. On the other hand, allocation of general funding and global loans to the promotional institutions of the federal states (*Landesförderinstitute – "LFI"*) and BAföG government loans is based on the individual drawdown volume and date, instead of the total volume of the contract at the time of commitment. In the lending business, financing amounts denominated in foreign currency are converted into euros at the exchange rate on the commitment date, whereas in the securities and equity finance business, the conversion generally occurs at the exchange rate on the transaction date.

See the "Development of KfW Group" economic report or segment reports for a breakdown of promotional business volume by individual segment.

Promotional expense

Promotional expense is understood to mean certain expenses arising in the two business sectors *Mittelstandsbank & Privatkunden (SME Bank & Private Clients)* and *Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)* to achieve KfW's promotional objectives.

Interest rate reductions accounted for at present value are the key component of KfW's promotional expenses. KfW grants these reductions for certain domestic promotional loans for new business during the first fixed interest rate period in addition to passing on its favourable refinancing conditions, obtained due to its triple-A rating. The difference between the fair value of these promotional loans and the transaction value during the first fixed interest rate period, due to the interest rate being below the market rate, is recognised in profit or loss as an interest expense and accounted for as an adjustment to the carrying amount under the item Financial assets at amortised cost. In addition, the accumulated interest rate reductions over the fixed interest rate period are recognised through profit or loss in Net interest income (see the relevant notes on KfW's promotional lending business, financial assets at amortised cost, and provisions).

An additional promotional component (in commission expense) comprises the expense paid in the form of upfront fees to sales partners for processing microloans. Promotional expense also contains disposable and product-related marketing and sales expenses (administrative expense), expenses for innovative digital promotional approaches (commission and administrative expense), and promotional grants awarded until the end of 2022 as a supplement to the lending business (other operating expense). In addition, KfW awarded promotional grants in the context of ERP promotion (other operating expense) for the first time in 2023.

In the internal presentation of earnings, Promotional expense included in Interest, Commission and Administrative expense and Other operating expense is reported separately due to its special relevance as a management variable.

Cost/income ratio (before promotional expense)

The cost/income ratio ("CIR") (before promotional expense) is calculated as administrative expense (excluding promotional expense) in relation to net interest and commission income before promotional expense.

The CIR reflects costs in relation to income and is thus a measure of efficiency. To enable a comparison of the CIR with other (non-promotional) institutions, an adjustment for the components of KfW's promotional business results is made to the numerator (administrative expense) and denominator (net interest and commission income).

In addition to CIR, KfW also reports an adjusted CIR, which takes into account KfW's specific business model. Under domestic promotional programmes with expense-based remuneration, as well as for the implementation of Financial Cooperation, KfW receives a compensation in the amount of costs incurred, which means that for these products CIR is almost at 100%. In order to ensure comparability of KfW's CIR with that of other financial institutions, the adjusted CIR does not take into account income and expenses related to these products.

Consolidated profit before IFRS effects

Consolidated profit before IFRS effects from hedging is another key financial figure based on Consolidated profit in accordance with IFRS. Derivative financial instruments are entered into for hedging purposes. Under IFRS, the requirements for the recognition and valuation of derivatives and hedges nevertheless give rise to temporary net gains or losses that are offset over the entire term. In KfW's opinion, due to economically effective hedging relationships, such temporary effects on results are not representative.

Consequently, the following reconciliations are performed by eliminating temporary contributions to profit and loss as follows:

- Valuation results from micro and macro hedge accounting.
- Net gains or losses from the use of the fair value option to avoid an accounting mismatch in the case of funding including related hedging derivatives.
- Net gains or losses from the fair value accounting of hedges with high economic effectiveness, but not qualifying for hedge accounting.
- Net gains or losses from foreign currency translation of foreign currency positions, in accordance with recognition and valuation requirements for derivatives and hedging relationships.
- Net gains or losses from changes to deferred taxes on credit rating-related effects of other derivatives from subsidiaries.

Economic report

General economic environment

Global real domestic product (“GDP”) increased by 3.1% in 2023 compared with 2022 according to estimates by the International Monetary Fund (“IMF”). The growth rate of global real GDP in 2023 was therefore lower than in 2022; the growth rate was also lower in industrialised countries, while the growth rate for developing countries and emerging economies remained unchanged year on year. According to IMF calculations, global consumer price inflation fell from an annual average of 8.7% in the previous year to 6.8% in 2023, while annual average core inflation declined to a lesser extent, from 6.4% to 6.3%. According to the IMF, global real GDP grew by 3.4% in the second quarter of 2023 compared to the same quarter of the previous year. However, negative factors came to bear as the year continued. These include the fact that the recovery of the service sector since the COVID-19 pandemic is well advanced, meaning that its development is less supportive of economic growth. Moreover, the manufacturing industry and international goods trading are exposed to a number of factors with a negative influence, including the shift in consumption patterns back from goods to services, and more restrictive lending terms.

Gross domestic product at constant prices

	2023 estimate	2022	2013–2022 average
Year-on-year change in %			
Global economy ¹⁾	3.1	3.5	3.1
Industrialised countries ¹⁾	1.6	2.6	1.8
Developing countries and emerging economies ¹⁾	4.1	4.1	4.0

¹⁾ The IMF aggregates the annual growth rates of gross domestic product (“GDP”) at constant prices of each country on the basis of the shares of country-specific GDP at purchasing power parities in the corresponding global aggregate to the growth rate of global real GDP, for industrialised countries as well as developing countries and emerging economies. The average is calculated as the geometric mean of annual growth rates.

Euro area economic growth lost momentum following its upturn in the post-pandemic years. Price-adjusted GDP rose by just 0.5% in 2023 compared to 2022, after growing by 3.4% in 2022 and 5.9% in 2021 (this represented the highest rate since 1999) (see table below on gross domestic product at constant prices, year-on-year change). The restrictive monetary policy since July 2022 has had an impact in the euro area. Harmonised consumer price inflation fell from 8.4% in 2022 to 5.4% in 2023. There was no pick-up in private demand. Foreign demand was also weak due to the decline in global trade. In addition to high energy prices, the lack of demand also weighed on industry. The rise in financing costs hampered economic activity, with production in the euro area construction industry, in particular, declining. The real estate market also experienced a slowdown due to higher interest rates. Tourism, on the other hand, developed positively. Tourists travelling from outside the eurozone supported weak domestic consumer spending. Despite the low growth, the European labour market proved robust with a relatively low rate of unemployment. Investment in some Member States increased moderately year on year. The fiscal support packages during the pandemic and the energy crisis had an increasingly limited impact on growth. In the year under review, the economy was overshadowed by the geopolitical uncertainty surrounding the conflicts in Ukraine and the Middle East.

Gross domestic product at constant prices, year-on-year change

	2023	2022	2013–2022 average	1999–2022 maximum
	in %	in %	in %	in %
Euro area	0.5	3.4	1.4	5.9 ¹⁾
Germany	–0.3	1.8	1.2	4.2 ²⁾

¹⁾ 2021 ²⁾ 2010

Against the backdrop of the global economic developments described above, higher interest rates and a continuing loss of purchasing power for private households as a result of consumer price inflation, which at 5.9% in 2023 was again almost as high as in 2022 (+6.9%), GDP in Germany contracted by 0.3% in 2023 compared with 2022, having previously grown by 1.8% in 2022 and by 1.2% on an annual average over the ten years from 2013 to 2022 (see table above on gross domestic product at constant prices, year-on-year change). Household final consumption expenditure (–0.8%), government final consumption expenditure (–1.7%), gross capital formation in new buildings (–2.1%), and gross capital formation in other assets (–0.6%) provided negative momentum for the rate of change in GDP in 2023, while gross capital formation in machinery and equipment increased (+3.0%). Overall, domestic use declined by 0.9% in 2023. Net exports supported the rate of change in GDP in 2023 with 0.6 percentage points, with the decline in exports (–1.8%) falling short of that of imports (–3.0%). From a production perspective, gross value added in the economic sectors provided both positive and negative impetus for the rate of change in GDP in 2023. The manufacturing industry, excluding construction, suffered the largest decline in gross value added (–2.0%), whereas the agriculture, forestry and fishing sector recorded the highest increase (+4.9%). Gross value added in the retail, transport and hospitality sector fell by 1.0%. The number of persons in employment located in Germany increased by 0.7% in 2023, compared with 2022, to 45.9 million.

Persistently high inflation rates continued to determine monetary policy in the euro and dollar areas in 2023. The fall in energy prices, together with the monetary tightening that began in 2022, caused the rise in headline inflation to slow. However, towards the end of 2023, inflation rates in both the euro area at 2.9% (rate of change in the Harmonised Index of Consumer Prices) and the USA at 2.6% (rate of change in the Personal Consumption Expenditures Price Index) were still above the “2% target” of the central banks.

Against this backdrop, key interest rates continued to rise in both currency areas over the course of 2023. The US Federal Reserve raised the target range for the federal funds rate by a total of 100 basis points (“bp”) to a range from 5.25% to 5.5% between January and July 2023 and maintained this level until the end of the year. The Federal Reserve also continued to shrink its balance sheet in 2023 by trimming its holdings on the asset side, a measure which it began in 2022. The European Central Bank (“ECB”) raised the deposit rate in several steps, most recently in September 2023, by 200 bp to 4%. The ECB had already discontinued its asset purchase programmes, the pandemic emergency purchase programme (“PEPP”) and the regular asset purchase programme (“APP”) in 2022. From March

2023 onwards, the ECB only reinvested a portion of the principal payments due under the APP, and from July 2023 onwards it no longer reinvested them at all. This resulted in a reduction of around 6%, to EUR 3,223 billion, in the holdings acquired under the APP by December 2023 compared to the end of 2022. However, the ECB continued to reinvest the repayments made under the PEPP in 2023. The cumulative net purchases of debt securities acquired under the PEPP totalled EUR 1,714 billion at the end of December. The regular and early repayments of the targeted longer-term refinancing operations (“TLTRO III”) had a greater impact on the size of the ECB balance sheet. By the end of December 2023, credit institutions in the euro area had reduced the longer-term funds (LTRO) they had borrowed from the central bank by EUR 925 billion compared to the end of 2022. The ECB had created major repayment incentives by adapting the interest rate conditions of TLTRO III transactions to the changed monetary policy environment.

As monetary tightening continued, average swap and money market rates in the eurozone and the USA climbed significantly in 2023 compared with 2022. However, as financial markets presumed that the central banks in both currency areas had completed their cycle of interest rate hikes, key market interest rates trended sideways or fell towards the end of 2023. For instance, the 3-month EURIBOR averaged 3.43% in 2023 (2022: 0.35%); the 5-year EUR swap rate averaged 3.12% (2022: 1.73%); and the yield of the 10-year German government bond stood at 2.46% (2022: 1.20%). In the US, the 3-month SOFR reference rate (CME) was 5.17% on average for the year in 2023, compared with 2.18% in the previous year. The 5-year USD swap rate averaged 3.83% in 2023 (2022: 2.79%), and the yield on 10-year US Treasuries was 3.96% (2022: 2.95%). The yield curves in both currency areas were clearly inverted, as measured by the difference between the yields of 10- and 2-year government bonds. In 2023, the average curve slope for German government bonds was –44 bp (2022: +43 bp), while the US government bond slope was –64 bp (2022: –4 bp).

The stock markets in the United States and the eurozone recovered significantly despite the interest rate hikes during the course of 2023. The major leading indices increased compared to the end of 2022. At 16,752 points, Germany’s leading DAX index registered 20% higher at the end of 2023 than at the end of 2022. The key US index S&P 500 stood at 4,770 points at the end of 2023, 24% higher than at the end of 2022.

Development of KfW Group

The group recorded a normalisation of promotional volume in 2023, following its historically strongest promotional year 2022, which was marked by multiple crises.

With a consolidated profit of EUR 1.6 billion, the **earnings position** in 2023 was very satisfactory – well above both the previous year (EUR 1.4 billion) and expectations (EUR 1.0 billion), despite geopolitical and macroeconomic uncertainties. At EUR 1.8 billion, the operating result before valuation (before promotional expense) significantly exceeded both the previous year and the target figure (both EUR 1.5 billion). This positive development is also reflected in the cost-income ratio (before promotional expense), which declined to 46.3% (2022: 49.6%) as a result of increased income from interest and commissions and an only slight increase in administrative expenses. The valuation result contributed to consolidated profit with EUR 0.3 billion (2022: EUR 0.1 billion). The IFRS effects from hedging relationships amounted to EUR 212 million (2022: EUR 182 million), resulting in a consolidated profit before IFRS effects of EUR 1,347 million (2022: EUR 1,183 million) from the reconciliation.

Consolidated total assets rose by EUR 6.1 billion to EUR 560.7 billion in financial year 2023. This development was mainly due to the EUR 10.8 billion increase in liquidity holdings and the market-price-induced increase of EUR 11.1 billion in value adjustments from macro hedge accounting. These increases were offset by the decline in Net loans and advances by EUR 15.4 billion to EUR 448.2 billion, EUR 14.1 billion of which was due to the lower utilisation of loans issued as part of the Federal Government-mandated transactions to secure the energy supply. The volume of own issues reported under Certificated liabilities amounted to EUR 452.2 billion (31 Dec. 2022: EUR 424.9 billion). The EUR 1.5 billion increase in equity to EUR 38.1 billion was mainly attributable to the consolidated profit of EUR 1.6 billion. This was offset by the revaluation reserves, which decreased by EUR 0.1 billion as a result of the decline in the discount rate for pension provisions.

Business performance in 2023 was largely characterised by the following developments:

A. Normalised demand for KfW products

The group recorded a very strong promotional year in 2023 with new commitments of EUR 111.3 billion (2022: EUR 166.9 billion) despite normalisation of the promotional volume, after 2022 set the record as the strongest promotional year in the bank's history, primarily due to large-volume transactions mandated by the Federal Government, particularly in connection with securing Germany's energy supply.

Promotional volume normalisation affected the domestic promotional business, the volume of which at EUR 77.1 billion was considerably below the prior-year volume of EUR 136.1 billion. New commitments in the context of the transactions mandated to secure the energy supply dropped from EUR 54.2 billion to EUR 11.5 billion. There was also a decline in new commitments under the Federal Funding for Efficient Buildings programme to EUR 16.1 billion (2022: EUR 37.4 billion) as part of the shift from broad-based promotion to focused top-level promotion with more demanding promotional terms. With commitments totalling EUR 2.1 billion in 2023 (2022: EUR 1.3 billion), the subsidiary KfW Capital once again generated significant growth in its business volume (+69%).

International business commitments increased again in financial year 2023 to a promotional business volume of EUR 35.1 billion (2022: EUR 30.7 billion). The business sector Export and project finance recorded its largest promotional volume thus far with a 33% rise in new commitments to EUR 24.2 billion (2022: EUR 18.1 billion). Commitments in the business sector KfW Development Bank decreased to EUR 9.0 billion (2022: EUR 10.9 billion), while DEG, under globally challenging conditions, posted a positive development in new business with commitments of EUR 1.9 billion (2022: EUR 1.6 billion).

KfW raised a record volume of EUR 90.2 billion in the capital markets to fund its business activities in 2023 (2022: EUR 89.4 billion). In addition, funds from the Economic Stabilisation Fund ("WSF") in a nominal amount of EUR 5.0 billion were utilised to finance the transactions mandated to secure Germany's energy supply in 2023 (2022: EUR 22.4 billion) and a further EUR 2.0 billion in nominal terms were used for coronavirus aid measures (2022: EUR 12.0 billion).

Promotional business volume of KfW Group

	2023	2022
	EUR in billions	EUR in billions
Domestic business	77.1	136.1
Mittelstandsbank & Private Kunden (<i>SME Bank & Private Clients</i>)	39.1	64.8
Individualfinanzierung & Öffentliche Kunden (<i>Customised Finance & Public Clients</i>)	35.9	70.0
KfW Capital	2.1	1.3
Financial markets	0.5	0.4
International business	35.1	30.7
Export and project finance	24.2	18.1
KfW Development Bank	9.0	10.9
DEG	1.9	1.6
Volume of new commitments¹⁾	111.3	166.9

¹⁾ Adjusted for export and project financing refinanced through KfW programme loans

B. Strong operating result well above previous year and target

At EUR 1,797 million, the Operating result before valuation (before promotional expense) was 17% above the prior-year level and the target (both EUR 1,536 million). This was primarily due to net interest income (before promotional expense) of EUR 2,738 million (2022: EUR 2,416 million), which was 8% above target (EUR 2,535 million). Net interest income, which remained the group's main source of income, was buoyed by the rise in interest rates, which was reflected in particular in a higher return on equity. At EUR 606 million (2022: EUR 629 million), net commission income (before promotional expense) was 7% higher than projected. At EUR 1,547 million, Administrative expense (before promotional expense) still remained slightly below plan, despite exceeding the previous year's figure by EUR 38 million, due in particular to lower personnel expense.

C. Positive risk provision result in a challenging environment

Despite the uncertainties in the geopolitical and macroeconomic environment, risk provisions for lending business resulted in an overall net income of EUR 165 million in 2023 (2022: net charges of EUR 122 million). The risk provision result was therefore significantly better than the projected standard risk costs (EUR -468 million). This development benefited from the very good risk situation in KfW's lending book, which was reflected in particular in the net reversals of provisions for latent risks (stage 1 and 2) for loans totalling EUR 172 million (2022: net expense of EUR 202 million). At the same time, the low net expense for non-performing loans (stage 3) in the amount of EUR 72 million (2022: net reversals of EUR 16 million) was largely offset by recoveries on loans written off totalling EUR 66 million (2022: EUR 62 million).

D. Equity investment result marked by diverging developments

The valuation of the equity investment portfolio resulted in a charge totalling EUR 101 million to the group in financial year 2023 (2022: income of EUR 89 million). KfW Capital's equity investment portfolio recorded charges totalling EUR 92 million as a result of the significant deterioration in venture capital market conditions since 2022 caused by the war in Ukraine, high inflation and rising interest rates. This development was offset by significantly higher net gains from fair value measurement in the preceding years, meaning that the cumulative valuation results in KfW Capital's still new portfolio remain positive. The valuation of DEG's equity investment portfolio yielded a net loss of EUR 80 million, in which the net gain from securities totalling EUR 13 million was more than offset by negative effects from foreign currency translation. This development was offset by the positive performance of the equity investment portfolios of the business sectors KfW Development Bank (EUR 69 million) and Export and project finance (EUR 11 million).

E. Significant increase in promotional expense in the higher interest rate environment

KfW's domestic promotional expense, which has a negative impact on its earnings position, also increased significantly in financial year 2023 to EUR 371 million (2022: EUR 305 million), reaching the level projected. The reason for the increase was the further rise in interest rates and the resulting greater demand for loans at reduced rates, which led to an increase in interest rate reductions by EUR 15 million to EUR 282 million. In addition, the obligation to issue grants under KfW's ERP promotional programmes in the years ahead, applicable for the first time in financial year 2023, led to promotional expense of EUR 62 million.

The following tables provide an overview of the development of key financial figures in financial year 2023:

Key financial figures of KfW Group

	2023	2022
	EUR in millions	EUR in millions
Key figures of the income statement		
Operating result before valuation (before promotional expense)	1,797	1,536
Operating result after valuation (before promotional expense)	2,109	1,668
Promotional expense	371	305
Consolidated profit	1,559	1,365
Cost-income ratio (before promotional expense) ¹⁾	46.3%	49.6%
Key economic figures		
Consolidated profit before IFRS effects	1,347	1,183
Key figures of the statement of financial position		
	31 Dec. 2023	31 Dec. 2022
	EUR in billions	EUR in billions
Total assets	560.7	554.6
Volume of lending	599.1	607.0
Volume of business	724.4	709.6
Equity	38.1	36.6
Equity ratio	6.8%	6.6%

¹⁾ Administrative expense (before promotional expense) in relation to adjusted income. Adjusted income is calculated as the sum of net interest income and net commission income (in each case before promotional expense).

Comparison with the previous year's forecast

	2022 forecast for 2023	2023 actual
New business		
Promotional business volume	EUR 79.6 billion	EUR 111.3 billion
Funding		
	EUR 80–85 billion	EUR 90.2 billion
Result		
Consolidated profit	EUR 0.95 billion	EUR 1.6 billion
Net interest income (before promotional expense)	EUR 2.5–2.6 billion	EUR 2.7 billion
Net commission income (before promotional expense)	EUR 0.6 billion	EUR 0.6 billion
Administrative expense (before promotional expense)	EUR 1.6 billion	EUR 1.5 billion
Risk provisions for lending business	EUR –0.5 billion	EUR +0.2 billion
Valuation result	EUR +0.2 billion	EUR –0.1 billion
Promotional expense	EUR 0.4 billion	EUR 0.4 billion

The main differences between the forecasts from the Financial Report 2022 and the actual business development in 2023 are presented in the Economic report.

Development of the KfW Group earnings position

The earnings position in 2023 was characterised by a considerable year-on-year increase in the operating result combined with an improved positive valuation result. This resulted in a consolidated profit of EUR 1.6 billion, which was above the prior-year figure (EUR 1.4 billion) and well above the target (EUR 1.0 billion).

Reconciliation of internal earnings position (before promotional expense) with external earnings position (after promotional expense) for financial year 2023

	EUR in millions	Reconciliation EUR in millions	EUR in millions	
Net interest income (before promotional expense)	2,738	-282	2,456	Net interest income
Net commission income (before promotional expense)	606	-13	593	Net commission income
Administrative expense (before promotional expense)	1,547	14	1,561	Administrative expense
Operating result before valuation (before promotional expense)	1,797	-309	1,488	Operating result before valuation
Risk provisions for lending business	165	4	169	Net gains/losses from risk provisions
Net gains/losses from hedge accounting	291	0	291	Net gains/losses from hedge accounting
Other financial instruments at fair value through profit or loss	-177	0	-177	Net gains/losses from other financial instruments at fair value through profit or loss
Securities and investments	4	-4	0	Net gains/losses from disposal of financial assets at amortised cost
Net gains/losses from investments accounted for using the equity method	29	0	29	Net gains/losses from investments accounted for using the equity method
Operating result after valuation (before promotional expense)	2,109	-309	1,800	Operating result after valuation
Net other operating income (before promotional expense)	-14	-62	-76	Net other operating income or loss
Profit/loss from operating activities (before promotional expense)	2,095	-371	1,724	Profit/loss from operating activities
Promotional expense	371	-371	0	-
Taxes on income	165	0	165	Taxes on income
Consolidated profit	1,559	0	1,559	Consolidated profit
Temporary net gains/losses from hedge accounting	212		212	Temporary net gains/losses from hedge accounting
Consolidated profit before IFRS effects	1,347	0	1,347	Consolidated profit before IFRS effects

Reconciliation of internal earnings position (before promotional expense) with external earnings position (after promotional expense) for financial year 2022

	Reconciliation			
	EUR in millions	EUR in millions	EUR in millions	
Net interest income (before promotional expense)	2,416	-267	2,148	Net interest income
Net commission income (before promotional expense)	629	-12	617	Net commission income
Administrative expense (before promotional expense)	1,509	16	1,525	Administrative expense
Operating result before valuation (before promotional expense)	1,536	-295	1,241	Operating result before valuation
Risk provisions for lending business	-122	-2	-124	Net gains/losses from risk provisions
Net gains/losses from hedge accounting	150	0	150	Net gains/losses from hedge accounting
Other financial instruments at fair value through profit or loss	64	0	64	Net gains/losses from other financial instruments at fair value through profit or loss
Securities and investments	-3	2	-1	Net gains/losses from disposal of financial assets at amortised cost
Net gains/losses from investments accounted for using the equity method	43	0	43	Net gains/losses from investments accounted for using the equity method
Operating result after valuation (before promotional expense)	1,668	-295	1,373	Operating result after valuation
Net other operating income (before promotional expense)	1	-10	-8	Net other operating income or loss
Profit/loss from operating activities (before promotional expense)	1,669	-305	1,365	Profit/loss from operating activities
Promotional expense	305	-305	0	-
Taxes on income	-1	0	-1	Taxes on income
Consolidated profit	1,365	0	1,365	Consolidated profit
Temporary net gains/losses from hedge accounting	182		182	Temporary net gains/losses from hedge accounting
Consolidated profit before IFRS effects	1,183	0	1,183	Consolidated profit before IFRS effects

At EUR 1,797 million, the **Operating result before valuation (before promotional expense)** was clearly above the prior-year level and the target (both EUR 1,536 million).

At EUR 2,738 million, **Net interest income (before promotional expense)** exceeded both the prior-year level (EUR 2,416 million) and the target (EUR 2,535 million). The main factor driving the year-on-year increase was the significant rise in income from investments of own funds due to the higher interest rates, with this figure also exceeding the target. Interest margin income, including commitment fees as a key component of KfW's interest income, recorded a slight increase and exceeded expectations considerably. Moreover, KfW's funding conditions on the capital and money markets remained very good and made a positive contribution to Net interest income due to the bank's top-notch credit rating.

Net commission income (before promotional expense) amounted to EUR 606 million, which was slightly below the 2022 figure (EUR 629 million) but above expectations (EUR 566 million). Net commission income mainly comprises the cost-based remuneration of EUR 288 million (2022: EUR 347 million) related to the implementation of the promotional programmes for the Federal Government and EUR 245 million (2022: EUR 231 million) related to the implementation of Financial Cooperation projects. Remuneration in the domestic promotional programmes exceeded the target figure despite the decline. The year-on-year decrease in this income was primarily due to the decline in remuneration in the energy efficiency and renewables sectors, including charging infrastructure. The remuneration from the Federal Government was offset by related administrative expenses. In addition to the expense-based remuneration, commission income in the business sector Export and project finance contributed to the outperformance with an increase of EUR 12 million to EUR 42 million, in particular from loan fees.

Administrative expense (before promotional expense) increased from EUR 1,509 million to EUR 1,547 million, but was lower than planning assumptions (EUR 1,565 million). Personnel expense amounted to EUR 873 million, which is slightly lower than the previous year's figure of EUR 887 million. The slight decrease was due to lower expenses from additions to pension provisions compared to the previous year. This was offset in particular by the rise in wages and salaries as a result of the greater number of employees, although the increase was lower than expected. The rise in non-personnel expense (before promotional expense) from EUR 622 million to EUR 674 million resulted in particular from higher costs for the use of external service providers.

The cost-income ratio before promotional expense decreased to 46.3% (2022: 49.6%), due to the greater increase of operating income compared to that of administrative expense. Adjusted for income and expenses from products for which cost-based remuneration has been agreed with the Federal Government, the cost-income ratio for 2023 amounted to 33.8% (2022: 37.1%).

Despite the high level of uncertainty in the geopolitical and macroeconomic environment, the result from **risk provisions for lending business** in 2023 was a total income of EUR 165 million and therefore significantly better than the projected standard risk costs (EUR -468 million). One of the reasons for this development was the very good risk situation in KfW's lending book, whereas in the previous year the economic impact of the Russia-Ukraine war and the resulting crises had negatively affected risk provisions for the lending business and had led to an expense of EUR 122 million.

The positive development in the KfW lending book reflects the improvements in the segment monitor. Despite the inclusion of a second, more conservative macroeconomic scenario, which takes into account the persistently tense economic situation, risk provisions for performing loans (stage 1 + 2) were fully reversed. This resulted in net income of EUR 172 million (2022: net expense of EUR 202 million).

Net additions of EUR 72 million (2022: net reversals of EUR 16 million) were recorded in risk provisions for non-performing loans (stage 3) including direct write-offs in 2023. Net additions primarily arose in the business sectors Export and project finance in the amount of EUR 68 million (2022: net reversals of EUR 107 million) and Mittelstandsbank & Private Kunden (SME Bank & Private Clients) in the amount of EUR 64 million (2022: EUR 44 million). Of the latter amount, EUR 42 million was attributable to education financing (2022: EUR 54 million). This was offset by net reversals at DEG in the amount of EUR 56 million (2022: net additions of EUR 55 million) and at KfW Development Bank in the amount of EUR 10 million (2022: EUR 8 million).

At EUR 66 million, income from recoveries of loans previously written off was slightly above that of the previous year (EUR 62 million). Of this amount, EUR 34 million was attributable to the business sector Mittelstandsbank & Private Kunden (SME Bank & Private Clients) and EUR 30 million to DEG.

Risk provisions for lending business decreased to EUR 1.9 billion in financial year 2023 (2022: EUR 2.2 billion), which relates to the provision for acute risks in stage 3, which remained unchanged at EUR 1.4 billion. Provisions for individual risks in stage 2 that cannot be allocated decreased from EUR 0.5 billion to EUR 0.4 billion, and in stage 1 from EUR 0.4 billion to EUR 0.2 billion.

The **net gains/losses from hedge accounting and other financial instruments at fair value through profit or loss** amounted to EUR 114 million (2022: EUR 214 million) and, in financial year 2023, were driven by positive purely IFRS-related effects from the measurement of derivatives used for hedging purposes and negative valuation effects from the equity investment portfolio.

The equity investment portfolios recognised at fair value through profit or loss recorded a total expense of EUR 130 million in financial year 2023 (2022: income of EUR 46 million). KfW Capital contributed to the development in 2023 with a valuation loss of EUR 93 million (2022: EUR 26 million), particularly as a result of the significant deterioration in venture capital market conditions since 2022 due to the war in Ukraine, high inflation and rising interest rates. DEG also recorded a valuation loss of EUR 80 million from its equity investment portfolio (2022: income of EUR 17 million). DEG's positive net income from securities of EUR 13 million (2022: expense of EUR 73 million) was more than offset by negative exchange rate-induced factors – particularly the depreciation of the US dollar. In addition, the result in the business sector Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*) was negative with an expense of EUR 15 million (2022: income of EUR 31 million). With a positive valuation result of EUR 59 million, KfW Development Bank more than made up for the valuation losses (EUR –61 million) recognised in financial year 2022 due to the effects of the war in Ukraine. The result from the equity investment portfolio of the business sector Export and project finance developed negatively with an expense of EUR 8 million (2022: income of EUR 11 million).

Hedge accounting and borrowings recognised at fair value, including derivatives used for hedging purposes, resulted in net income of EUR 203 million (2022: EUR 202 million). The mark-to-market derivatives are part of economically hedged positions. However, if the other part of the hedging relationship cannot be carried at fair value or different valuation methods and parameters have to be applied, this inevitably results in temporary fluctuations in income that are fully offset over the term of the transactions.

The measurement of securities at fair value through profit or loss yielded an almost balanced result, as in the previous year (EUR 0 million).

In the case of securities not carried at fair value, developments in the financial markets resulted in a net difference of EUR –87 million between the carrying amount and the fair value (2022: EUR –57 million). This development is partly attributable to decreases in the value of the covered bonds. However, there were essentially no defaults or significant deteriorations in credit quality.

There were net gains of EUR 33 million (2022: EUR 41 million) from **securities and investments** as well as from **investments accounted for using the equity method**. Investments accounted for using the equity method contributed EUR 29 million to the result. This was primarily due to value increases in the business sectors Export and project finance and KfW Development Bank.

Net other operating income (before promotional expense) was EUR –14 million, which was down on the previous year's figure (2022: EUR 1 million).

At EUR 371 million in 2023, KfW's domestic **promotional expense**, which has a negative impact on KfW Group's earnings position, was above the prior-year level (EUR 305 million) and almost in line with projections (EUR 376 million).

Interest rate reductions are the key component of KfW's promotional expense. KfW grants these for certain domestic promotional loans during the first fixed-interest-rate period, which has a negative effect on its earnings position, in addition to passing on its funding conditions which are influenced by its triple-A rating. At EUR 282 million, the volume of interest rate reductions increased once again in financial year 2023 (2022: EUR 267 million), but was still below the projected figure (EUR 337 million). The increase in interest rate reductions was primarily a result of the sustained higher interest rates, which led to an additional increase in demand for promotional loans at reduced rates. The promotional grants provided in addition to the lending business and recognised as promotional expense in Net other operating income rose to EUR 62 million in financial year 2023 (2022: EUR 10 million). The reason for the increase was the obligation to award grants under KfW's ERP promotional programmes with promotional expenses of EUR 62 million. This was offset by the discontinuation of promotional expenses under the Climate action campaign (2022: EUR 10 million) after the programme expired in financial year 2022. Moreover, promotional expenses reported in net commission income and administrative expense amounted to EUR 27 million (2022: EUR 28 million). Among other things, this spending was aimed at the sale of KfW's promotional products.

The group reported a tax expense of EUR 165 million for financial year 2023 (2022: income of EUR 1 million), of which EUR 117 million (2022: EUR 46 million) related to current taxes on income and EUR 47 million to deferred tax expense (2022: income of EUR 47 million). The increase in current taxes on income is primarily due to the positive earnings performance in 2023 of the taxable companies included in the consolidated financial statements.

Overall, the group generated a **consolidated profit** of EUR 1,559 million, which is higher than the previous year (EUR 1,365 million) and considerably exceeded expectations of around EUR 950 million.

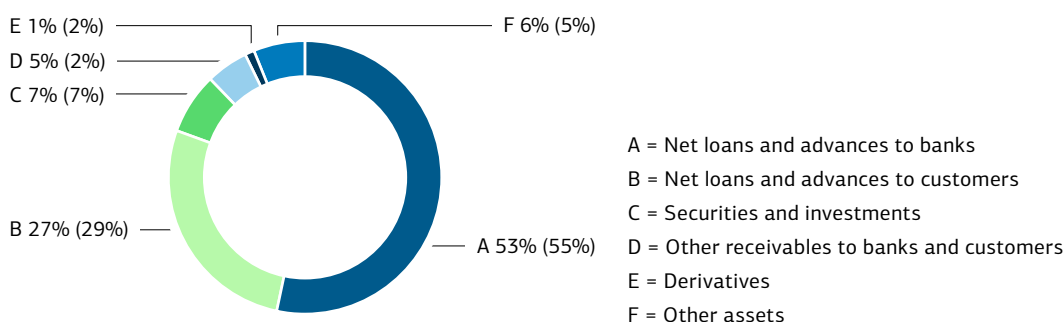
Consolidated profit before IFRS effects from hedging is another key financial figure, which is calculated based on Consolidated profit in accordance with IFRS to reflect the fact that the group uses derivative financial instruments solely for hedging purposes. Under IFRS, the requirements for the recognition and valuation of derivatives and hedges give rise to temporary net gains or losses that are offset over the entire term. Against this backdrop, IFRS effects from hedging relationships amounting to EUR 212 million (2022: EUR 182 million) were eliminated.

The reconciled earnings position amounted to a profit of EUR 1,347 million (2022: EUR 1,183 million). The increase in consolidated comprehensive income is largely due to the strong development of the operating result before valuation and the positive risk provision result, which were only partially offset by the negative valuation result from the equity investment portfolio. Accordingly, the result far exceeds the sustainable earnings potential of EUR 1.0 billion overall.

Development of net assets of KfW Group

Lending to banks and customers accounted for 80% of the group's assets as of 31 December 2023 (2022: 84%).

Assets of KfW Group as of 31 December 2023 (31 Dec. 2022)



Compared to the previous year, the **volume of lending** decreased by EUR 7.8 billion to EUR 599.1 billion (2022: EUR 607.0 billion).

Volume of lending of KfW Group

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Loans and advances	450,020	465,655
Risk provisions for lending business	-1,852	-2,102
Net loans and advances	448,168	463,554
Contingent liabilities from financial guarantees	3,486	3,543
Irrevocable loan commitments	136,118	129,183
Loans and advances held in trust	11,281	10,681
Total	599,054	606,961

Net loans and advances decreased by EUR 15.4 billion in 2023, mainly due to the decline of EUR 14.1 billion in the provision of liquidity support for energy suppliers and the decline of EUR 8.4 billion in the coronavirus special programme 2020, particularly in the KfW Entrepreneur Loan and KfW Entrepreneur Loan – SMEs programmes. Overall, unscheduled repayments (EUR 11.0 billion; 2022: EUR 14.5 billion) and scheduled repayments more than compensated for disbursements in new lending business. At EUR 448.2 billion, Net loans and advances accounted for 75% of lending volume.

Contingent liabilities from financial guarantees remained at the previous year's level at EUR 3.5 billion. Irrevocable loan commitments rose by EUR 6.9 billion to EUR 136.1 billion, largely as a result of irrevocable commitments of EUR 5.6 billion for liquidity support to energy suppliers. Within assets held in trust, the volume of Loans and advances held in trust, which primarily comprise loans to promote developing countries and emerging economies financed by budget funds provided by the Federal Republic of Germany, increased by EUR 0.6 billion to EUR 11.3 billion.

Other loans and advances to banks and customers posted an increase of EUR 16.2 billion to EUR 28.9 billion. EUR 9.0 billion of the increase resulted from higher deposits, mainly at banks (EUR 9.1 billion), and EUR 6.1 billion from reverse repo transactions in which KfW acts in the capacity of lender.

The total amount of **securities and investments**, at EUR 40.6 billion, was 6% above the previous year's level.

Securities and investments of KfW Group

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Bonds and other fixed-income securities	36,057	33,721
Shares and other non-fixed income securities	0	0
Equity investments	4,418	4,342
Shares in non-consolidated subsidiaries	90	80
Total	40,565	38,143

The securities portfolio increased by EUR 2.3 billion to EUR 36.1 billion in financial year 2023 (31 Dec. 2022: EUR 33.7 billion). The portfolio of Equity investments and Shares in non-consolidated subsidiaries increased by EUR 0.1 billion to EUR 4.5 billion in 2023. This was due in part to portfolio growth at KfW Capital and in the business sector KfW Development Bank.

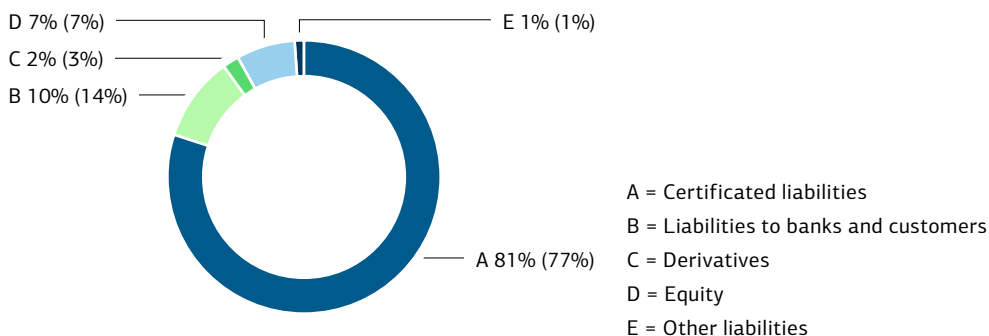
Value adjustments from macro hedge accounting rose by EUR 11.1 billion, based on fair value, from EUR –25.9 billion to EUR –14.8 billion. **Derivatives** with positive fair values, which are primarily used to hedge refinancing transactions, declined from EUR 11.5 billion in 2022 to EUR 7.8 billion. This was primarily due to value adjustments of derivatives used in micro hedge accounting, which decreased from EUR 6.7 billion to EUR 4.0 billion.

KfW reduced its **balances with central banks** by EUR 4.4 billion to EUR 47.4 billion. The liquidity held continues to ensure reactions to market events at short notice. There were only minor changes in the **other asset line items** in the statement of financial position.

Development of the KfW Group financial position

KfW Group’s funding strategy in the national and international capital markets is based on the four product categories: “benchmark programmes in euros and US dollars”, “Green Bonds – Made by KfW”, “other public bonds” and “private placements”. Due to the healthy business performance, particularly at KfW IPEX-Bank, and to an increase in the liquidity requirement, KfW increased the planned funding volume for 2023 by EUR 5 billion to around EUR 90 billion. The proceeds also served the purpose of pre-financing the expected liquidity requirement in 2024. In addition, funds totalling a nominal EUR 7.0 billion were raised via the Economic Stabilisation Fund (“WSF”) in 2023 to fund support measures for energy suppliers due to the Ukraine war (EUR 5.0 billion) and the coronavirus special programmes (EUR 2.0 billion). Overall, the share of total assets accounted for by funding in the form of certificated liabilities therefore rose to 81% (previous year: 77%).

Financial position of KfW Group as of 31 December 2023 (31 Dec. 2022)



Compared to the previous year, **borrowings** increased by EUR 7.1 billion to EUR 507.4 billion (2022: EUR 500.3 billion).

Borrowings of KfW Group

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Short-term funds	40,773	43,810
Bonds and notes	414,553	385,810
Other funding	52,025	70,678
Total	507,352	500,298

Funds raised in the form of certificated liabilities rose by EUR 27.4 billion to EUR 452.2 billion. Of this increase, EUR 28.7 billion was attributable to medium and long-term bonds and notes, which remain the group's principal source of funding. At year-end 2023, such funds amounted to EUR 414.6 billion (31 Dec. 2022: EUR 385.8 billion) and accounted for 82% of borrowings. Short-term issues of commercial paper declined by EUR 1.4 billion to EUR 37.7 billion. Total short-term funds, including demand deposits and term deposits, amounted to EUR 40.8 billion, compared with EUR 43.8 billion in the previous year. Funds were released in the course of the partial loan repayment of the liquidity support for energy suppliers and the coronavirus special programme 2020. This largely resulted in a decline in Other funding by EUR 18.7 billion to EUR 52.0 billion (31 Dec. 2022: EUR 70.7 billion). Other funding mainly includes promissory note loans (*Schuldscheindarlehen*) from customers, which declined by EUR 13.0 billion to EUR 38.8 billion (primarily representing funding through the WSF). In addition, cash collateral received, which is largely used to hedge counterparty risk from the derivatives business, declined from EUR 5.4 billion in the previous year to EUR 2.9 billion, and liabilities from repurchase agreements with the German Finance Agency in the amount of EUR 2.6 billion (31 Dec. 2022: EUR 2.9 billion) were almost completely repaid.

The carrying amounts of derivatives with negative fair values, which were primarily used to hedge own issues, decreased by EUR 2.5 billion, from EUR 14.5 billion as of 31 December 2023, primarily due to changes in market parameters, and amounted to EUR 12.0 billion at year-end 2023.

There were only minor changes in the **other liability line items** of the statement of financial position.

At EUR 38.1 billion as of 31 December 2023, **equity** was EUR 1.5 billion above the level of EUR 36.6 billion as of 31 December 2022. The increase resulted in particular from consolidated profit (EUR 1.6 billion). The reversal of the fund for general banking risks, in accordance with Section 340g of the German Commercial Code (*Handelsgesetzbuch – "HGB"*), in an amount of EUR 0.2 billion, resulted in a reclassification within equity in the consolidated financial statements to retained earnings. The decline in the discount rate for pension obligations from 3.89% to 3.41% generated an increase of EUR 0.1 billion in the revaluation reserves. The equity ratio increased year on year from 6.6% as of 31 December 2022 to 6.8% as of 31 December 2023, primarily due to the increase in equity.

Equity of KfW Group

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Paid-in subscribed capital	3,300	3,300
Capital reserve	8,447	8,447
Reserve from the ERP Special Fund	1,191	1,191
Retained earnings	25,150	23,391
Fund for general banking risks	0	200
Revaluation reserves	-15	50
Total	38,073	36,579

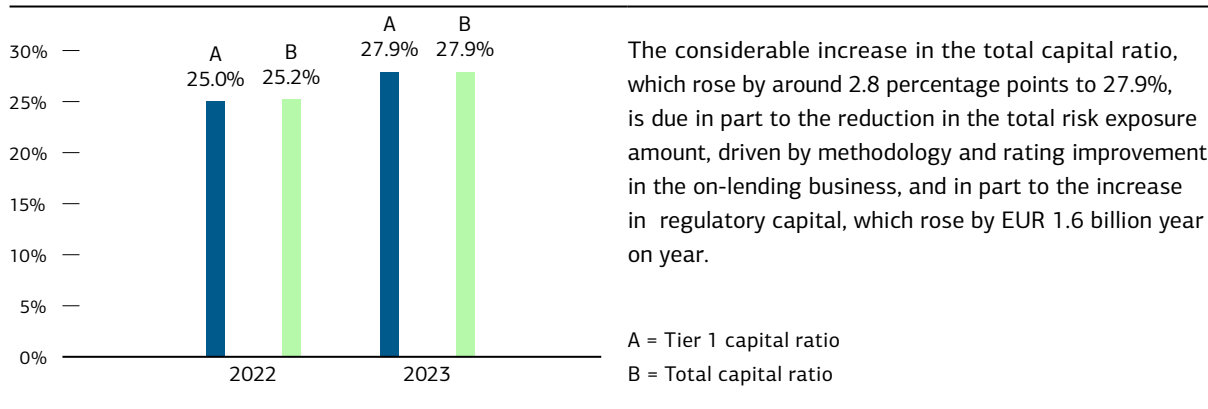
The consolidated profit was allocated to retained earnings.

Risk report

Overview of key indicators

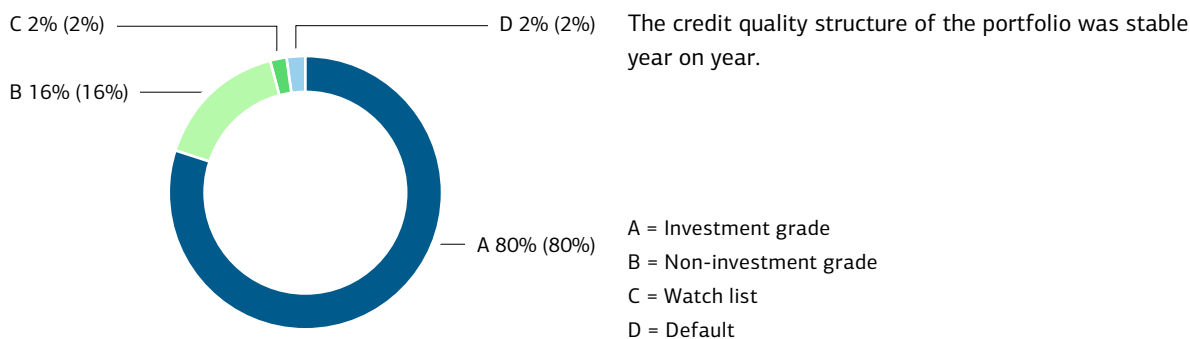
Risks are reported at group level in accordance with KfW Group's internal risk management. The key risk indicators are presented below:

Regulatory capital ratios:



Credit risk:

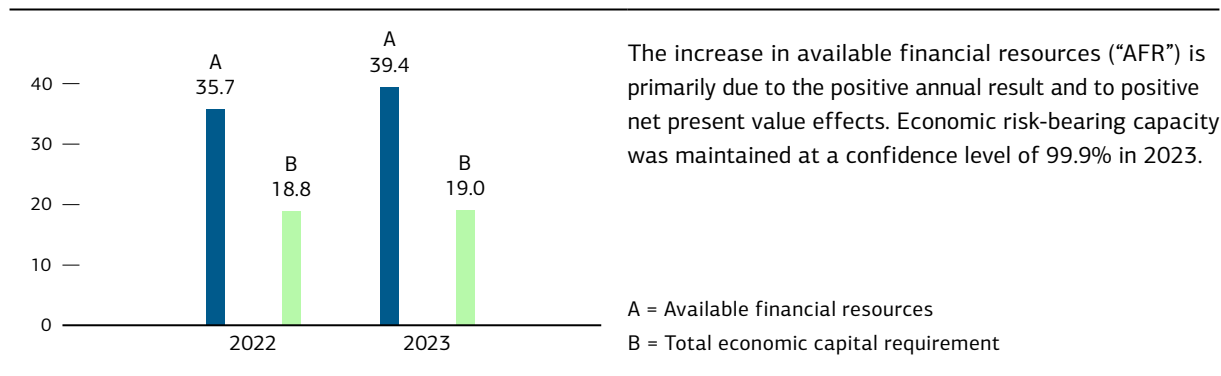
2023 (2022), Net exposure breakdown¹⁾



¹⁾ Compared to the previous year excluding equity investment risk

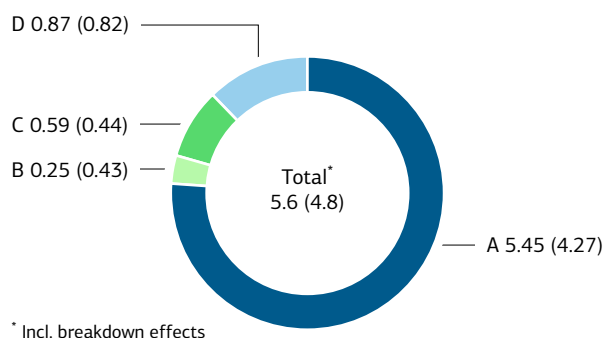
Economic risk-bearing capacity

(EUR in billions)



Market price risk:

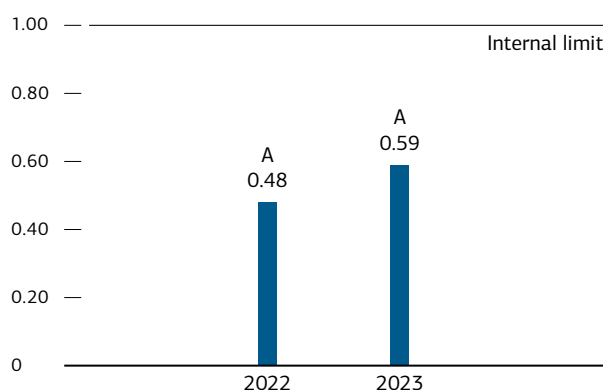
2023 (2022), ECAP (EUR in billions)



The overall capital requirement for market price risks increased year on year, largely driven by interest risk, currency risk and credit spread risk. The primary factors behind this increase are volatile markets, an expansion of the strategic interest rate risk position and further development of the value-at-risk (“VaR”) model.

A = Interest risk
 B = Interest volatility risk
 C = Currency risk
 D = Credit spread risk

Liquidity risk:

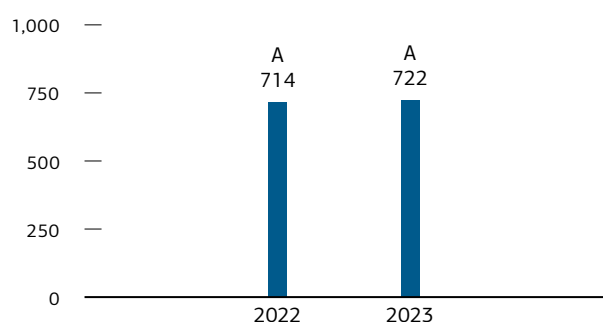


The liquidity risk indicator remained considerably below the internal limit throughout the year. The increase compared to the prior year was mainly due to higher liquidity outflows than expected as a result of new lending business.

A = Liquidity risk indicator (worst case)

Operational risk:

ECAP (EUR in millions)



The economic capital requirement for operational risks was virtually unchanged year on year.

A = ECAP

Current developments

In financial year 2023, as in previous years, KfW Group refined the processes and instruments of its risk management and controlling, taking into account current banking supervisory requirements. Further development of the economic risk-bearing capacity model increased the consistency between credit risk measurement and calculation of available financial resources. Credit risk measurement is now performed on the basis of present value. The VaR model used to measure market price risk was revised, primarily to address changed parameters in the interest rate environment. The model now takes into account stress periods over a longer historical period.

Management of environmental, social and governance risks (“ESG risks”) was also further developed as part of a group-wide project. KfW has been implementing its sustainable finance concept as part of this project (“tranSForm”) since the end of 2020 and is enhancing its ESG risk management on this basis in a sub-project. The sub-project involves the development and implementation of an application for the structured identification and assessment of ESG risk drivers in credit risk (“ESG risk profile”), which took place at the beginning of 2023. Other central issues in 2023 included increased integration of ESG risks into the lending process, further development of ESG stress testing methods and reporting, and consideration of ESG risks in the relevant overall bank and risk management processes.

From a country risk perspective, Russia’s war of aggression against Ukraine remains a key factor affecting the global economic situation. The economic effects of the COVID-19 pandemic are still being felt, as well. The global economic recovery was sluggish in 2023, partly because tighter monetary policies resulting from inflation were a drag on the economy. The risks persist despite the main issues of high inflation, supply chain disruptions and energy shortages having eased. Although historically high inflation has fallen sharply, primarily due to falling commodity prices, in many countries inflation has not yet reached the desired 2% p.a. Particularly core inflation rates remain high. Central banks continue to face the challenge of finding a balance between combating inflation and dampening economic growth. The high levels of debt in many, including industrialised, countries remain a further challenge and continue to constrict fiscal leeway, thus reducing countries’ ability to react to further crises and shocks. Greater geoeconomic fragmentation is a growing risk in this regard, particularly with its negative impact on global trade.

The effects of the pandemic and the Russian war of aggression against Ukraine have also had an impact on banking risk, particularly by causing high inflation rates and an ensuing significant rise in interest rates. The first half of 2023 was characterised by the uncertainties following the crises at Silicon Valley Bank and Crédit Suisse. Swift action by US financial regulators, the rapid takeover of Silicon Valley Bank and the merger of Crédit Suisse with UBS eased pressure on the international banking markets. However, the markets remained sensitive and required greater vigilance in credit risk management and risk mitigation measures. Bank risk management also focused on the international commercial and residential property markets in 2023. The effects of inflation, rising interest rates and material supply bottlenecks in the property sector are only slowly becoming apparent in bank balance sheets. Increasing loan loss provisions are now visible. While specific real estate situations, such as in Australia and the USA, have largely country-specific effects, and are curbed by countermeasures implemented by national supervisory authorities, the problems in China are spilling over into international markets. The European banking markets have proved very robust thus far and are likely quite well equipped to face loan defaults due to their loan collateral and comfortable equity levels. The situation on the international banking markets remains challenging due to the economic and geopolitical situation.

The corporate portfolio is also impacted by the effects of the growing geopolitical conflicts. However, risk exposures to corporates with a direct or indirect link to Russia, Belarus and Ukraine are largely hedged and only account for a small proportion of the credit risks in this portfolio as a whole. The proportion of companies affected by the conflict in the Middle East in KfW’s portfolio is also low and the related business is generally well collateralised.

Basic principles and objectives of risk management

KfW Group has a statutory promotional mandate. Sustainable promotion is KfW Group's overarching purpose. The aim of risk management is for the group to take risks only to the extent that they appear manageable in the context of its current and anticipated earnings position and capital resources. KfW Group's risk/return management takes into account the business model of a promotional bank without the primary intention of generating a profit and without a trading book, with appropriate implementation of supervisory requirements constituting a fundamental prerequisite for the group's business activities.

The promotional bank business model determines the group's risk culture with its four regulatory-based elements: leadership culture, responsibilities, communication and incentives. Incentive structures for employees and their responsibilities are designed accordingly. Senior management specifies the desired code of conduct, with the desired dialogue established by means of communication with and through the relevant bodies.

Organisation of risk management and monitoring

Risk management bodies and responsibilities

As part of its overall responsibility, KfW's Executive Board determines the group's risk policies. The Board of Supervisory Directors is informed at least quarterly of KfW Group's risk situation. The Risk and Credit Committee set up by the Board of Supervisory Directors is primarily responsible for advising the Board of Supervisory Directors about the group's current and future overall risk tolerance and strategy and supports it in monitoring the implementation of the latter. The Committee decides on loan approvals (including loans to members of management), operational level equity investments, funding and swap transactions, where committee authorisation is required by the KfW Bylaws. The Audit Committee monitors, above all, the accounting process and the effectiveness of the risk management system and internal control and offers recommendations to the Board of Supervisory Directors concerning its approval of KfW's annual and consolidated financial statements.

Additionally, the subsidiaries and organisational entities of KfW Group exercise their own control functions within the group-wide risk management system. Group-wide regulations, projects and working groups are in place to implement a uniform approach, such as in the rollout of rating instruments to subsidiaries or in the management and valuation of collateral. The responsibility for developing and structuring risk management and risk control activities is located outside the front-office departments and lies in particular with the Risk Controlling and Credit Risk Management areas.

Group risk management is carried out by various interconnected decision-making bodies. At the top of the system is the Executive Board, which takes the key decisions on risk policy. There are three risk committees below Executive Board level (Credit Risk Committee, Market Price Risk Committee and Operational Risk Committee) that prepare decisions for the Executive Board, take their own decisions within their remits, and also involve representatives from KfW subsidiaries in decision-making processes¹⁾. Internal Auditing has a fundamental right to attend risk management committee meetings. Working groups such as the Rating Systems Working Group, Collateral Working Group, Country Rating Working Group, Corporate Sector Risk Working Group, Market Price Risk Working Group, Hedge Committee and OpRisk Working Group support the committees. Committee resolutions are adopted by simple majority with middle and back-office departments (Marktfolge) or Risk Controlling entitled to veto decisions. Escalation to Executive Board level is possible in all committees.



¹⁾ ESG risks factor into the different risk types. There is no separate ESG committee set up to manage them. ESG risks are managed through the committees responsible for the specific risk types, as required.

Credit Risk Committee

The Credit Risk Committee is chaired by the Chief Risk Officer and meets once a week. Additional voting members of the committee are the Director of Credit Risk Management, members of the Executive Board with front-office responsibilities and KfW IPEX-Bank's Chief Risk Officer ("CRO"). The CRO of DEG has guest status. The weekly meetings of the Credit Risk Committee involve, in particular, making important lending decisions in line with the credit approval policy, with KfW subsidiary exposures also being presented. Current loan portfolio developments, including country and sector risks, are addressed on an ad hoc basis. This includes reports and submissions from the Country Rating Working Group and the Corporate Sector Risk Working Group. DEG's CRO is also entitled to vote and the managing director of KfW Capital responsible for risk issues has guest status. Once a month, the (general) Credit Risk Committee discusses overarching credit risk issues and makes decisions on significant adjustments in accordance with the competency matrix. These essentially include reports and draft resolutions on the risk situation and risk management – in particular on stress tests for credit and equity investment risks – as well as on credit risk methods and policies, and the submissions addressed in the working groups for rating systems and collateral. Reports are also made on the development of regulatory requirements, their impact and the progress of implementation projects in KfW Group. To this end, the voting membership of the Credit Risk Committee has been expanded to include the Director of Risk Controlling, the DEG CRO and the managing director of KfW Capital responsible for risk issues. The Credit Risk Committee is supported by various working groups. The Country Rating Working Group serves as the central unit for assessing country risk. The Collateral Working Group supports the committee in connection with methodological and procedural issues and decisions relating to collateral acceptance and valuation, in particular the (further) development of methods used, acknowledgement of validation results and adjustments to the collateral management processes. The Rating Systems Working Group is responsible for credit risk measurement instruments and rating procedures. The Corporate Sector Risk Working Group is a group-wide expert panel which analyses sector and product-related credit risks in the corporate segment. The decisions made, reports submitted, and other key topics addressed in the working groups are communicated to the Credit Risk Committee via the working group minutes.

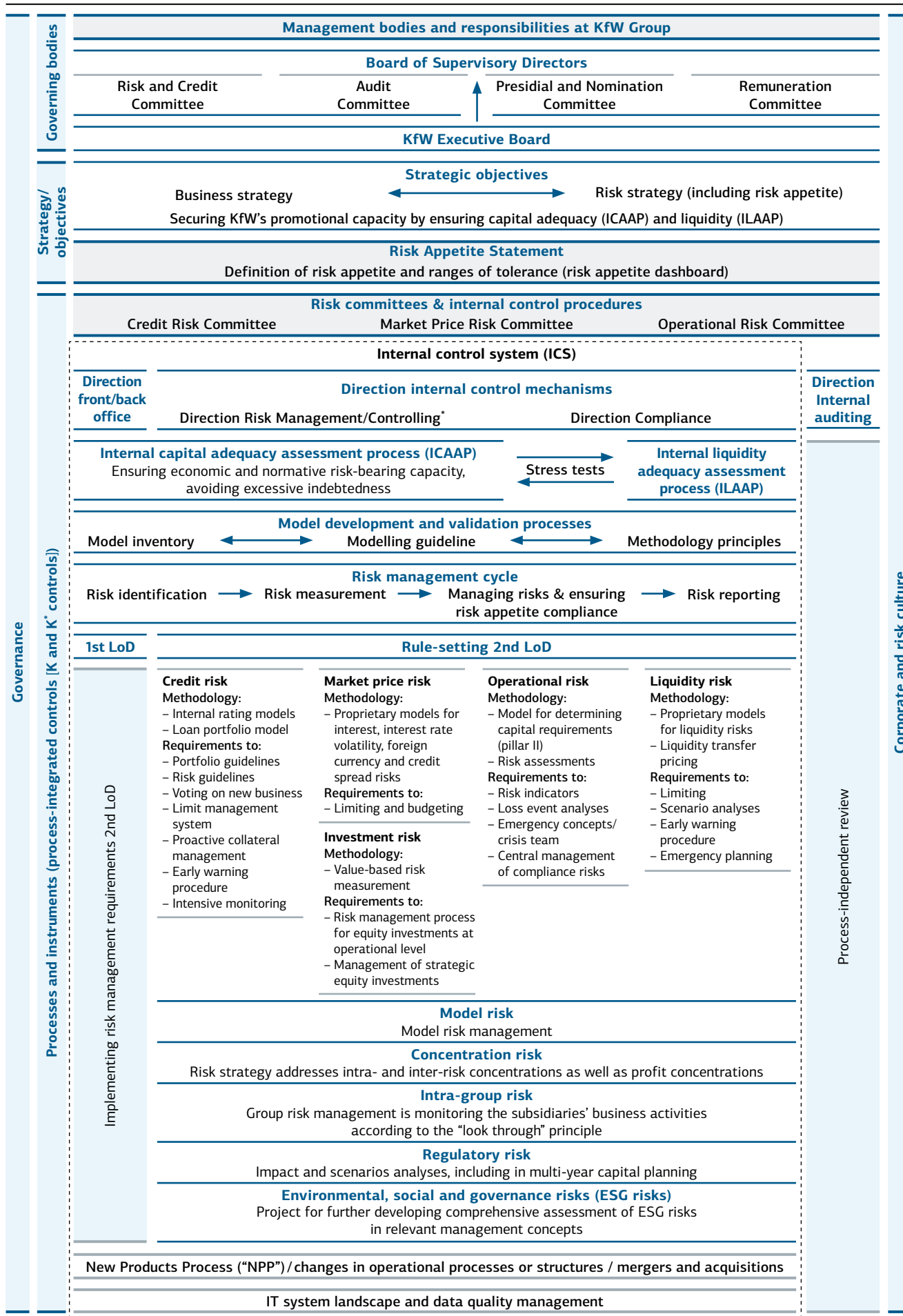
Market Price Risk Committee

The Market Price Risk Committee meets monthly or on an ad hoc basis, as required, and is chaired by the Chief Risk Officer. In addition to the Chief Risk Officer, the members of the Executive Board responsible for capital markets business and finance are also represented. The members of the committee also include the directors of Risk Controlling, Financial Markets, Accounting, Transaction Management and the CROs of KfW IPEX-Bank and DEG. The Market Price Risk Committee discusses KfW Group's market price and liquidity risk position and assesses the market price risk strategy on a monthly basis. The committee also decides on questions relating to the principles and methods applied for the management of market price and liquidity risks, on funding, transfer pricing and on valuation for commercial transactions. The Market Price Risk Committee is supported by the Hedge Committee and the Market Price Risk Working Group. The Hedge Committee deals primarily with the earnings effects of IFRS hedge accounting and the further development thereof. The Market Price Risk Working Group deals with methodology issues relating to market price and liquidity risks as well as measurement issues. These include matters relating to model development, validation and financial reporting measurement, in particular, taking note of validation reports and recommendations resulting from validation.

Operational Risk Committee

The Operational Risk Committee meets once every quarter and provides support to the Executive Board in cross-functional management, in taking the necessary decisions and acknowledgements in respect of operational and reputational risk, and in protecting group security, including business continuity management ("BCM"). The Chief Risk Officer is responsible for chairing the Operational Risk Committee meetings. In principle, all areas of the bank are represented in the committee – in selected cases based on a representation concept. Moreover, the managing director level of KfW IPEX-Bank, DEG and KfW Capital is represented on the committee. The committee discusses the risk status on the basis of the findings obtained through different methods and instruments and evaluates any group-wide need for action, with the aim of adequate risk management. The results of the validation of the OpRisk model are acknowledged. In the area of BCM, the committee is informed about the results of the annual business impact analysis and the failure scenarios identified and to be addressed by contingency plans. There is also quarterly reporting on the status of BCM using a risk indicator. The committee meeting documents, together with the minutes and the resolutions and recommendations contained therein, are submitted to the Executive Board. The committee formed the Group Security Board ("GSB") to take up matters related to group security and BCM and the OpRisk Working Group as a working group for exchange with the decentralised department coordinators for operational risk and business continuity management ("BOB").

Risk management approach of KfW Group (overview)



*In addition to Risk Controlling, further departments in some cases also exercise control functions due to organisational reasons.

To ensure capital and liquidity adequacy in line with the defined risk appetite, Risk Controlling supports the Executive Board in developing and implementing the group's risk strategy together with the relevant subsidiaries, KfW IPEX-Bank, DEG and KfW Capital.

The risk strategy translates the group's long-term and strategic risk objectives into operational risk management requirements. This involves defining risk management objectives for core business activities and measures for achieving targets, as well as determining KfW Group's appetite for material risks.

In order to determine its material risks, KfW Group conducts a **risk inventory** at least once a year. The risk inventory identifies and defines types of risks relevant to the group and then subjects them to a materiality evaluation. The materiality of a risk type depends on the potential material danger for KfW Group's net assets, earnings and liquidity. The key outcome of the risk inventory is an overall risk profile, which provides an overview of KfW Group's material and immaterial risk types. The 2023 inventory found that KfW Group faces the following material risks: credit, market price, liquidity, operational, equity investment, concentration, regulatory, intra-group and model risks. It also led to the decision that project risk and reputational risk will no longer be classified as material with regard to their potential impact in future. Reputational risk, however, will continue to be closely monitored and managed as a prominent risk type²⁾.

Risk concentrations associated with material risks either within a risk type or across various risk types are taken into account and classified as material in the risk inventory. In addition, the risk inventory process involves looking at the impact of ESG risks on the overall risk profile.

The Executive Board is informed about KfW Group's risk situation on a monthly basis. A risk report is issued quarterly to KfW Group's supervisory bodies. The respective bodies are informed on an ad hoc basis as required.

The models used for group-wide risk measurement and management, as well as for financial reporting measurement, are regularly validated and refined where necessary. These primarily include the models for measuring and managing credit, equity investment, market price, liquidity and operational risks, as well as the models for financial reporting measurement.

The risk management approach is set out in the group's procedural rules. The procedural rules stipulate the framework for the application of uniform policies and procedures to identify, measure, control and monitor risk. The rules and regulations laid out in the procedural rules are binding for the entire group and are accessible to employees through their publication on the intranet. KfW group-wide regulations are supplemented by rules specific to each business sector. See the following sections for details on other elements of KfW Group's risk management approach.

INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

The objective of the internal capital adequacy assessment process ("ICAAP") is to maintain sufficient capital at all times to cover the risks assumed. Capital adequacy is assessed from both a normative and an economic perspective. The two perspectives are closely interwoven and ultimately flow into a holistic and consistent risk management system that ensures achievement of the common objective of continued business operations through the bidirectional flow of information. The overarching ICAAP architecture also includes the performance of stress tests to assess the group's capital position under adverse conditions. The aforementioned ICAAP components are presented in the following sections.

The normative perspective of ICAAP ensures in particular continuous compliance with the regulatory capital requirements of Pillar I in accordance with the Capital Requirements Regulation ("CRR") and the German Banking Act (*Kreditwesengesetz – "KWG"*) both on an ongoing basis, and in a longer-term view (normative capital planning). In addition to a base scenario, adverse scenarios (downturn and stress scenarios) are considered. In these adverse scenarios, deviations from the base scenario are calculated and projected for the planning period. This takes into account the simultaneous materialisation of losses from the material risk types identified as part of the risk inventory, which may result in lower regulatory capital. This includes, in particular, risks that do not have to be explicitly backed with capital under Pillar 1. Furthermore, an increase in the total risk exposure amount (RWA) is assumed along with a significant mild or severe recession scenario.

²⁾ The results of the risk inventory are implemented in KfW's risk management concepts with the 2024 risk strategy.

The multi-year capital planning process is based on the strategic objectives defined as part of group business sector planning and is updated quarterly in terms of assumptions and market parameters. The development of the large exposure limit and the leverage ratio are monitored as further structural capital requirements. This is intended to enable early identification of any capital bottlenecks.

The economic perspective of the ICAAP serves to safeguard the economic assets of the institution in order to protect creditors from economic loss, thereby implementing Pillar 2 of the CRR. This is achieved by comparing the available financial resources as of a key date with the risk assumed as of the same date (economic capital requirement or ECAP for all material risks to capital) and monitored by the control variables of the economic coverage ratio, i.e. the quotient of available financial resources and economic capital requirement. Both available financial resources and risk figures are stated as a present value and are static (determined at a specific point in time, i.e. they do not take into account new business or periodicity). The risk figures cover all material risks to capital in accordance with the risk inventory (overall risk profile). The amount of economic capital required, and thus the security level of the risk-bearing capacity, is largely determined by the solvency level (99.90%) selected for risk measurement. There is no regular forecast of economic risk-bearing capacity although an indicative forecast of economic risk-bearing capacity may be produced, if necessary, if future developments which may have a material impact on risk-bearing capacity are identified via a list of questions.

Both ICAAP perspectives include regularly performed stress tests in the form of simulations of adverse economic conditions (downturn and stress scenarios). A traffic light system established in this context with thresholds for the key indicators relating to normative and economic risk-bearing capacity indicates a need for action as part of operational and strategic management in the event of critical developments.

The ICAAP is subject to an annual review of its adequacy. The results of this review are taken into account in the assessment of risk-bearing capacity. In the 2023 review, the ICAAP was assessed as “generally adequate”.

As of 31 December 2023, risk-bearing capacity is stated in terms of both the normative and the economic perspective:

Normative risk-bearing capacity

Key regulatory figures

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Total risk exposure in accordance with Art. 92 CRR	131,388	139,643
– Credit risk	123,401	131,642
– Market price risk	2,224	2,369
– Operational risk	5,764	5,632
Regulatory capital	36,697	35,126
– (Common equity) tier 1 capital	36,646	34,891
– Additional tier 1 capital	0	0
– Tier 2 capital	50	235
CET1 ratio	27.9%	25.0%
Tier 1 capital ratio	27.9%	25.0%
Total capital ratio	27.9%	25.2%

KfW calculates the total risk exposure for significant parts based on an advanced IRBA. The considerable increase in the total capital ratio, which rose by around 2.8 percentage points to 27.9%, is due in equal parts to the reduction in total risk exposure and the increase in regulatory capital compared to the previous year. At 27.9%, the total capital ratio at year-end 2023 remained above the overall capital requirement.

KfW Group's exposure to the macroprudential measures announced on 12 January 2022 to mitigate systemic risks in the residential property market continues to be assessed as low, as KfW's portfolio does not contain any material exposure secured by residential property. The systemic risk buffer for risk positions in Norway also has only a marginal effect. The increase in the countercyclical capital buffer in Germany by 0.75 percentage points will considerably increase the countercyclical capital buffer to 0.55 percentage points.

Minimum requirements for total capital ratios

	31 Dec. 2023	31 Dec. 2022
Total SREP capital requirements (TSCR)	12.25%	12.25%
<i>Capital conservation buffer</i>	2.50%	2.50%
<i>Countercyclical capital buffer</i>	0.55%	0.17%
<i>Other systemic buffer</i>	1.00%	1.00%
<i>Systemic risk buffer</i>	0.02%	0.00%
Overall capital requirement (OCR)	16.31%	15.92%

Economic risk-bearing capacity

To assess its economic risk-bearing capacity, KfW Group compares its economic capital requirement for potential losses from material quantifiable risks to capital with its available financial resources calculated at present value. The basis of available financial resources is KfW Group's equity adjusted for present value differences, previously unrecognised accrued profits, the risk provisions for non-value-adjusted business, future cash flows from margins and costs for administration and expected portfolio business defaults, as well as some capital deduction items for a prudent economic valuation. KfW Group bases its calculation of the economic capital requirement on a one-year time frame.

Credit risk is the risk of a negative impact on net assets, earnings position and liquidity if business partners fail to meet their payment obligations to KfW Group at all, in due time or in full (default) or if their credit ratings deteriorate (migration). Credit risk includes settlement risk in connection with derivative transactions and counterparty risk including credit valuation adjustment risk ("CVA" risk) in relation to derivative exposures. CVA risk is reported as part of the combined "counterparty risk (including CVA risk)" sub-risk type. The economic capital requirement for credit risk is quantified by the Risk Controlling department, largely with the help of statistical models. A value-based measurement of credit and equity investment risks is carried out using a loan portfolio model and credit value-at-risk as a risk measure. The economic capital requirement for CVA risk is based on the CVA charge of Pillar I, which is adjusted for economically relevant aspects (including consideration of other risk-relevant items and the use of internal ratings). For settlement risks, a buffer determined on the basis of different quantification approaches, which is reviewed annually, is applied in calculating economic risk-bearing capacity.

The economic capital requirement for **market price risk** is calculated on the basis of the value-at-risk concept. Pillar II's economic analysis takes account of interest risk (consisting of the jointly analysed sub-risk types: interest risk, as well as tenor and cross-currency basis spread risks) of the banking book, foreign currency risk, credit spread risk for securities and interest rate volatility risk. The possible loss of present value or price is determined for each type of market price risk using a value-at-risk based on historical simulation. Ultimately, the economic capital requirement is determined by total VaR, which takes into account breakdown effects between the various subtypes of market price risk.

The economic capital requirement for **operational risk** is calculated using an internal statistical model, which was derived from regulatory requirements for advanced measurement approaches. It takes a risk-sensitive approach to internal and external event data and risk scenarios. The capital requirement is calculated at group level, taking into account diversification effects, and then allocated to the business sectors. Moreover, the measurement of the quality of operational risk management within the group can generate premiums that are then applied to the capital requirement.

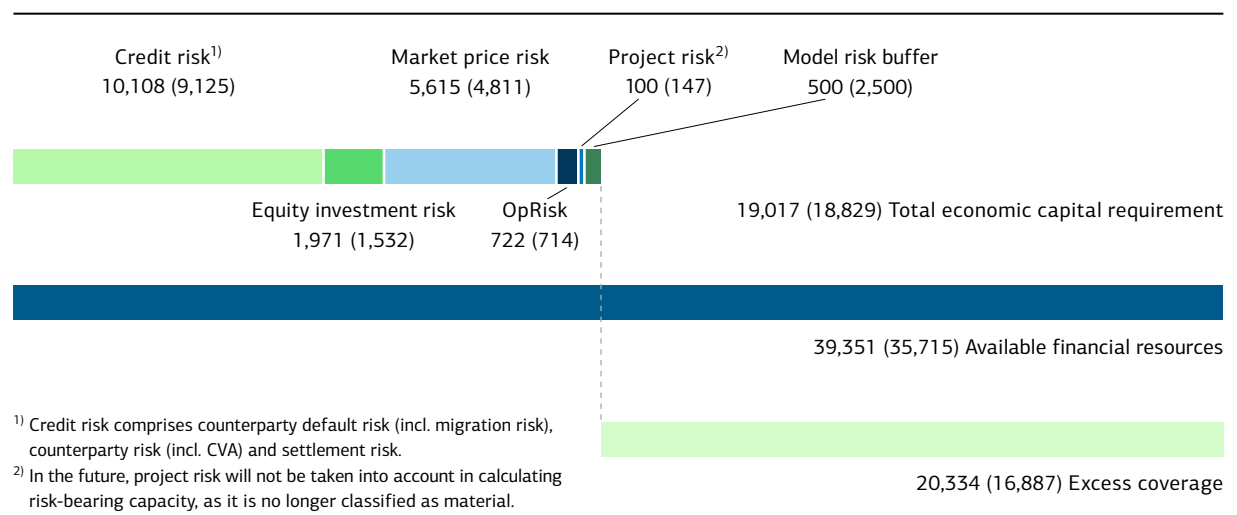
Project risks are also taken into account in the risk-bearing capacity concept. Both quantified individual risks from building blocks (agile implementation units used to bundle activities to further develop IT) and general assumptions about potential losses in the project portfolio are included in risk measurement.

In addition, a **model risk buffer** is applied to cover model weaknesses and foreseeable methodological changes in economic risk-bearing capacity, reviewed and adjusted quarterly and as necessary.

Using this method, the economic risk-bearing capacity as of 31 December 2023 satisfied a confidence level of 99.90%. The excess coverage of the available financial resources beyond the total capital requirement as of 31 December 2023 (EUR 20,334 million) increased compared to the previous year's figure (EUR 16,887 million). This was primarily attributable to the significant increase in available financial resources, which was particularly due to the positive annual result and positive net present value effects resulting from the present value calculation approach being applied since 2022. The increase in available financial resources is offset by a virtually unchanged capital requirement. The higher capital requirement for credit and equity investment risk is primarily due to the recent interest rate trend and further method development, with offsetting effects from the further development of present-value-based credit risk measurement. The increase in the capital requirement for market price risk is largely due to volatile markets, expansion of the strategic interest rate risk position, and further development of the internal VaR model, with the latter offset by a significant reduction in the model risk buffer.

Economic risk-bearing capacity as of 31 December 2023

EUR in millions



In brackets: figures as of 31 December 2022

Each risk identification model represents a simplification of a complex reality and builds on the assumption that risk parameters observed in the past can be considered representative of the future. Not all possible inputs and their complex interactions can be identified and modelled for the risk development of a portfolio. This is addressed by including safety margins in the design of the model, and a supplementary model risk buffer in the calculation of economic risk-bearing capacity. This is one reason why KfW Group carries out stress tests with both the credit risk models and the market price risk models. The group continuously develops its risk models and processes in line with current banking regulations.

Stress and scenario calculations

To ensure the early indicator function and proactive focus in the ICAAP, the group monitors different scenarios and their effects on economic and normative risk-bearing capacity on a quarterly basis: a baseline scenario (solely with respect to normative risk-bearing capacity, which represents the capital ratios for future reporting dates, taking into account economic forecasts), a downturn scenario (slight deterioration in economic conditions compared to expectations) and a stress scenario (severe recession). The results of these scenarios demonstrate the group's resilience and ability to act in the event that one of them occurs.

The baseline scenario for normative risk-bearing capacity includes projected business performance, expected consolidated comprehensive income, and other effects influencing risk-bearing capacity, such as foreseeable changes in the capital structure and methodological developments in risk measurement. It also takes into account the negative effects on the earnings position and risk situation resulting from the expected economic development.

The downturn and stress scenarios for normative and economic risk-bearing capacity simulate adverse effects on earnings and changes in capital requirements of varying severity extending beyond the developments already expected as of the key date or in the baseline scenario. The stress scenario assumes a prolonged and severe global recession. In both scenarios, the group assumes an increase in credit and equity investment risks and losses. In these scenarios, the EUR and USD interest rates as well as the EUR-USD exchange rate are forecast to develop in line with the economic situation. At the same time, it is assumed that increasing market uncertainties will lead to increased volatility in interest rates, currencies and credit spreads, which in terms of economic risk-bearing capacity will result in a rise in the economic capital requirement for the corresponding types of risk. Losses from operational risk further reduce available capital.

The scenarios are based on standardised global economic forecasts updated on a quarterly basis, taking into account the current economic environment. The long-term effects of internationally relevant events on the global economy, such as the Russian war on Ukraine and the war in the Middle East, were thus factored into KfW's regular stress calculations in 2023. In this context, higher energy, commodity and food prices in particular are significantly impacting the economic environment. In the scenarios, negative economic assumptions primarily lead to rating downgrades and thus to higher risk provisioning and higher capital requirements for the portfolio segments affected. In addition to the regular stress calculations, selected potential threats to KfW were analysed in scenario stress tests in 2023, taking into account the current environmental, geopolitical and macroeconomic situation. This testing focused on a scenario on the impact of acute drought events and social unrest in several regions of the world, a scenario based on the information on the adverse scenario of the EBA/ECB 2023 stress test, a scenario on China's confrontation with Taiwan with negative economic consequences for the parties to the conflict and the main global economic areas, and a scenario on (further) escalation of the Middle East conflict.

Moreover, the expansion of stress testing methods for ESG risks was driven forward in 2023. In this context, a scenario was also conducted on the long-term effects of two CO₂ price scenarios on KfW's credit risk situation. This scenario is to be methodically developed going forward and updated as required.

Besides the regularly simulated economic scenarios, further stress tests, in particular risk type-specific stress tests (including in accordance with Article 177 of the CRR) and various sensitivity analyses, are also regularly carried out taking concentration risks into account, to analyse the resilience of KfW's economic and normative risk-bearing capacity. In addition, the concentration and inverse stress tests show how KfW's risk-bearing capacity could be pushed to its limits.

The results of the various stress and scenario calculations were presented to the decision makers at KfW in a separate digital stress test report.

The group met the economic risk-bearing capacity requirements, including the confidence level of 99.90% in the scenarios analysed, as of all quarterly calculation dates in 2023. The regulatory capital ratios and the leverage ratio exceeded the threshold values defined for risk appetite at all times.

KfW's stress testing programme was subject to an annual adequacy assessment in 2023, the aim being to further enhance the stress tests and scenario calculations as a component of overall bank management in order to meet internal and regulatory requirements. The programme was assessed as "generally adequate" overall.

Types of risk

CREDIT RISK

KfW Group is subject to credit risk in the context of its promotional mandate. Credit risk includes, in particular, counterparty default risk (including migration risk), as well as counterparty risk (including credit valuation adjustment ("CVA") risk) and settlement risk.

The majority of final borrower default risks are borne by the on-lending institutions in the domestic promotional lending business. Due to the business model, this results in a large proportion of bank risks in the portfolio. Other main risks result from promotional activities in the area of start-up finance for SMEs and equity investments. Particularly in these segments of domestic promotion, KfW Group bears the risk stemming from final borrowers. In addition, KfW Group faces risks in the business sectors Export and project finance as well as Promotion of developing countries and emerging economies.

Debtor level	Sovereigns	Banks	Enterprises	Other
Rating procedures (Probability of default)	– Country rating	– Bank rating	– Corporate rating – SME rating	– Special financing – Structured products – Retail – Start-up rating
Business level	Exposure at default			
Portfolio level	Loss given default			
	Loan portfolio model			

Validation and further development processes

Counterparty default risk³⁾ is measured by estimating the probability of default (“PD”), the exposure at default (“EAD”) and the loss given default (“LGD”). The product of the three aforementioned variables is the loss that can be expected, statistically, on average over many years.

KfW Group uses internal rating procedures to determine the probability of default for banks, countries, corporates, small and medium-sized enterprises (SMEs) and start-ups. These procedures are based on scorecards⁴⁾ and generally follow a uniform model architecture consisting of a machine rating, a checklist, a group logic and a manual override. Simulation and cash flow-based rating procedures are used for significant parts of special financing and structured products, some of which were licensed from an external provider. For structured products, tranche ratings are determined on the basis of the default pattern of the asset pool and the waterfall structure of the transactions. The existing small-ticket retail positions (e.g. in the area of education financing) are valued using an automated procedure specially set up for this purpose. The rating procedures aim to predict the probability of default on a one-year basis. As a rule, the middle and back-office departments are responsible for preparing ratings for risk-bearing business. Ratings for these exposures are updated regularly, at least once per year. There are exceptions for loans below a threshold of EUR 10 million from the KfW special programmes in the context of the pandemic and the Russian war on Ukraine. There were several further developments in PD rating procedures in the reporting year.

Mapping the probability of default on a uniform master scale for the entire KfW Group enables a comparison of ratings from different rating procedures and business sectors. The master scale generally consists of 20 distinct classes which are divided into four groups: investment grade, non-investment grade, watch list and default. The range of default probabilities and the average default probability are defined for each class of the master scale. There are operating procedures specifying the responsibilities, competencies and control mechanisms associated with each rating procedure. External ratings are mapped to KfW Group’s master scale to ensure the comparability of internal ratings with ratings of external rating agencies. The rating procedures are validated and further developed at regular intervals.

Exposure at default (“EAD”) and valuation of collateral influence the severity of loss. Collateral has a risk-mitigating effect in calculating loss given default (“LGD”). In valuing acceptable collateral, the expected net revenue from collateral realisation in the case of loss is determined. Haircuts to cover the credit risk of final borrowers are a major factor in the valuation of assignments made by financing partners in the on-lending business. For tangible collateral, further haircuts are applied for expected changes in value, as well as devaluation resulting from depreciation. Depending on the availability of data, the various valuation procedures for individual types of collateral are based on internal and external historical data and on expert estimates. In the case of personal collateral, the collateralised portion is treated as a direct transaction with the collateral provider, i.e. the probability of default and the extent of the collateral

³⁾ Also includes counterparty risk.

⁴⁾ A scorecard is a mathematical and statistical model and/or an expert knowledge-based model. The individual risk factors considered relevant for credit rating are converted into a score depending on their prevalence or value and weighted for aggregation.

provider's uncollateralised loss are applied. A risk principle for loan collateral regulates uniform management, valuation and recognition of collateral across KfW Group. In addition to net revenue from collateral realisation, the recovery rate for uncollateralised exposure amounts is also an important component in determining LGD. The collateral valuation procedure and the procedure for estimating the EAD and LGD are also subject to validation and further developed as needed, with new regulatory requirements also addressed.

Settlement risks and counterparty risks (including CVA)⁵⁾ arise for KfW in connection with derivative transactions when hedging interest and currency risks. Settlement risks arise if, after the bank's own transaction has been concluded, the derivative partner's counterpayment is not made. Derivative transactions also involve the risk of changes in value (counterparty risks including CVA), which can be caused by a change in the credit quality of the counterparty (credit risk including default risk), a change in the absolute price of the derivative (market price risk) or a combination of the two.

KfW Group has limit management systems, risk guidelines and various portfolio guidelines to limit risks from new business. This set of risk management instruments forms the basis for the second vote on lending transactions, serves as an orientation guide for loan approvals and has the function of ensuring the appropriate quality and risk structure of KfW Group's portfolio while taking into account the special nature of KfW Group's promotional business. At KfW, Group Risk Management has the second vote on a single exposure level. KfW IPEX-Bank, KfW Capital and DEG each have their own second vote independent of the front office. The relevant business decision-making processes are structured with a view to risk. Lending transactions require a second vote depending on the type, scope of the risk content and complexity of the transaction. The qualification levels for approval of new business depend on rating, collateralisation or net exposure and total commitments to the group of connected customers. Approval of the responsible supervisory body is also required for individual transactions of pre-defined volumes.

The portfolio guidelines distinguish between different types of counterparties and product variants and define the conditions under which business transactions may be conducted. In addition, risk guidelines for countries, sectors and products are defined in order to react to existing or potential negative developments with specific requirements for lending. The limit management systems ultimately track both credit rating-dependent individual counterparty risk (counterparty limits) and risk concentrations (concentration limits). Counterparty limits serve to fine-tune the counterparty-specific management of credit default risk. Concentration limits serve to restrict risk concentrations in the loan portfolio and thus to prevent major individual losses. Due to KfW's business model, there is a significant concentration in credit risks, as well as in the financial sector.

Existing higher-risk exposures are divided into a watch list and a list for non-performing loans. The watch list serves to identify potential problem loans early. This involves regularly reviewing and documenting the economic situation, the particular borrower's market environment and the collateral provided, and formulating and deciding proposals for remedial action as needed – particularly proposals for risk-limiting measures. Process responsibility for non-performing loans, and also to a large extent for watch-list exposures⁶⁾, lies with restructuring units, ensuring involvement of specialists, intensive support and professional management of problematic loans. The objective of this system is to achieve recovery of a loan through restructuring, reorganisation and workout arrangements. If the business partner is deemed incapable or unworthy of restructuring, the priority becomes optimum realisation of the asset and the related collateral. The Restructuring division is responsible for non-performing loans and for providing intensive support to banks and higher volume loans with a risk amount greater than EUR 1 million in the KfW portfolio. The portfolio credit management department is responsible for supporting retail business. Rules with differing details apply for the special programmes for coronavirus aid, which are fully backed by a federal guarantee. KfW IPEX-Bank's non-performing loans and exposures under intensive support, including KfW and DEG's trust activities, are managed directly by each subsidiary. Internal interface regulations are in place in the relevant business sectors to ensure control of responsibilities and allocation. Restructuring also cooperates with the front-office departments and the central Legal Affairs department.

⁵⁾ See section on "Economic risk-bearing capacity" for measurement of the economic capital requirement for credit risks.

⁶⁾ The assumption of responsibility for watch-list cases at KfW IPEX-Bank is decided on a case-by-case basis by Risk Management in consultation with the unit responsible for restructuring.

In the event of a crisis in the banking sector, the bank has to be able to act without delay both in-house and externally. A crisis plan for banks is in place for this purpose. It primarily provides for the establishment of a dedicated working group under the direction of the Credit Risk Management department and immediate loss analysis so that the necessary next steps can be implemented quickly.

Information on default risk and default risk concentrations (gross carrying amounts) as of 31 December 2023 – amortised cost

		Loans and advances to banks			Loans and advances to customers		
		Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	Rating 1–4	237,861	0	0	48,554	3	0
	Rating 5–8	61,980	0	0	33,045	0	0
Non-investment grade	Rating 9–15	17,039	209	0	49,411	1,039	0
Watch list	Rating 16–18	4,536	1,889	0	3,360	4,210	0
Default	Rating 19–20	0	0	1,128	0	0	4,707
Total		321,416	2,098	1,128	134,370	5,252	4,707

		Securities and investments			Off-balance sheet transactions		
		Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	Rating 1–4	28,587	0	0	69,254	0	0
	Rating 5–8	7,234	64	0	47,366	0	0
Non-investment grade	Rating 9–15	133	0	0	20,106	1,110	0
Watch list	Rating 16–18	47	0	0	501	737 ¹⁾	0
Default	Rating 19–20	0	0	0	0	0	455
Total		36,001	64	0	137,227	1,847	455

¹⁾ The year-on-year decline is mainly due to rating improvements in the business sector Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients).

**Information on default risk and default risk concentrations (gross carrying amounts)
as of 31 December 2022 – amortised cost**

		Loans and advances to banks			Loans and advances to customers		
		Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	Rating 1–4	156,552	0	0	48,233	36	0
	Rating 5–8	121,873	0	0	32,556	0	0
Non-investment grade	Rating 9–15	20,978	657	0	53,634	4,204	0
Watch list	Rating 16–18	10,911	2,179	0	5,888	4,587	0
Default	Rating 19–20	0	0	1,018	0	0	5,339
Total		310,314	2,836	1,018	140,311	8,827	5,339

		Securities and investments			Off-balance sheet transactions		
		Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	Rating 1–4	21,246	0	0	55,154	14	0
	Rating 5–8	12,394	8	0	39,562	0	0
Non-investment grade	Rating 9–15	62	0	0	33,412	1,196	0
Watch list	Rating 16–18	24	0	0	1,566	1,568 ¹⁾	0
Default	Rating 19–20	0	0	0	0	0	532
Total		33,725	8	0	129,693	2,777	532

¹⁾ The year-on-year decline is mainly due to rating improvements in the business sector Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients).

**Credit risks and related credit protection of financial instruments
measured at amortised cost as of 31 December 2023**

	Maximum risk of default ¹⁾	Maximum risk of default stage 3	Risk mitigation from collateral stage 3	
			tangible	personal
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Loans and advances to banks	324,475	1,044	9	1,013
Loans and advances to customers	142,644	3,484	87	2,765
Securities and investments	36,057	0	0	0
Off-balance sheet transactions	139,438	404	0	26
Total	642,613	4,932	96	3,803

¹⁾ Net carrying amount, excluding collateral and other credit enhancements

**Credit risks and related credit protection of financial instruments
measured at amortised cost as of 31 December 2022**

	Maximum risk of default ¹⁾	Maximum risk of default stage 3	Risk mitigation from collateral stage 3	
			tangible	personal
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Loans and advances to banks	313,919	890	11	602
Loans and advances to customers	152,624	4,128	93	2,971
Securities and investments	33,721	0	0	0
Off-balance sheet transactions	132,887	484	0	28
Total	633,151	5,502	104	3,601

¹⁾ Net carrying amount, excluding collateral and other credit enhancements

A large part of the personal collateral of the financial instruments classified as stage 3 comprises federal guarantees and credit insurance. Tangible collateral for financial instruments classified as stage 3 primarily consists of aircraft and ship mortgages.

As a rule, the collateral for financial instruments measured at fair value relates almost entirely to the collateral for financial derivatives.

There were no material changes to the quality or collateralisation policies and no impairments due to collateral in 2023.

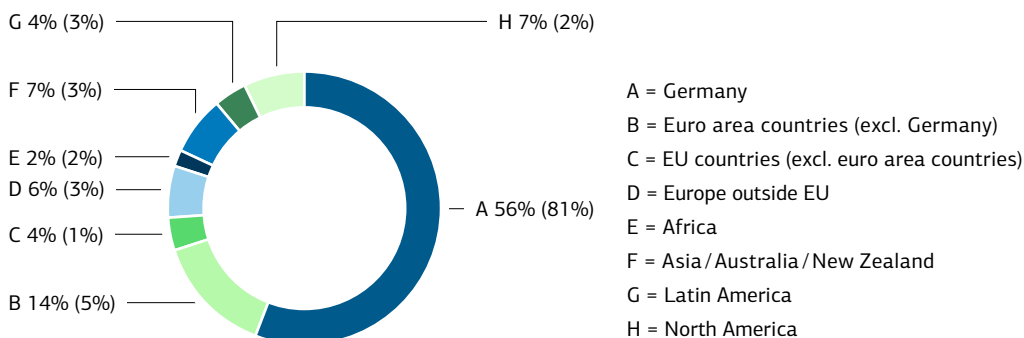
KfW Group did not take possession of any assets held as collateral nor did it realise any assets held as collateral in 2023.

Portfolio structure

The interaction of the risks associated with the individual exposures in KfW Group's loan portfolio⁷⁾ is assessed based on an internal portfolio model. Concentrations of individual borrowers or groups of borrowers give rise to a risk of major losses that could jeopardise KfW Group's existence. On the basis of the economic capital concept, the Risk Controlling department measures risk concentrations by individual borrower, sector and country. Risk concentrations are primarily reflected in the economic capital requirement. The results of these measurements form the main basis for managing the loan portfolio.

Economic capital requirement by region

31 December 2023 (31 Dec. 2022)

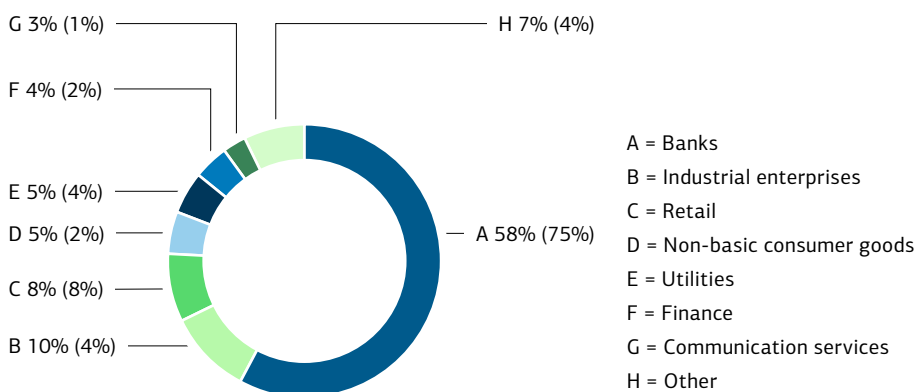


Regions

As of 31 December 2023, 70% of KfW Group's loan portfolio in terms of economic capital requirements was attributable to the euro area (including Germany) (31 Dec. 2022: 86%). The main reasons for the decline were methodological developments in the loan portfolio model for calculating risk indicators. For the domestic banking portfolio in particular, this resulted in a sharp reduction in the economic capital requirement. This was offset by an increase in the economic capital requirement for other counterparties in the foreign portfolio.

Economic capital requirement by sector

31 December 2023 (31 Dec. 2022)

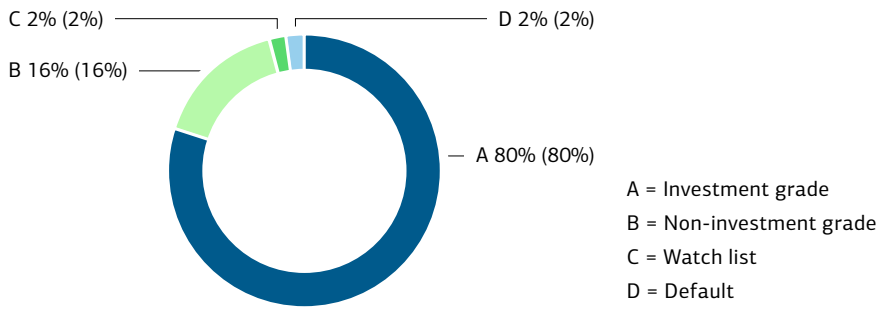


Sectors

The sector clusters system was revised in the second quarter of the reporting year. For better comparability, the previous year is presented based on the new system. The significant share of the total capital requirement for credit risk attributable to banks is due to KfW Group's promotional mandate. By far the greatest portion of KfW Group's domestic promotional business consists of loans on-lent through commercial banks. The model adjustment stated in the previous paragraph also relates to sectors. Overall, the banks' share of the economic capital requirement declined to 58% (31 Dec. 2022: 75%).

⁷⁾ The loan portfolio includes loans as well as securities and investments in performing business. The non-performing portfolio is only included in the presentation of credit quality.

Credit quality by net exposure
31 December 2023 (31 Dec. 2022)



Credit quality

As credit quality is a major factor influencing economic capital requirements, analysing the credit quality structure involves examining the distribution of net exposure⁸⁾ by credit quality category. The credit quality structure of the portfolio was stable year on year.

Securities-based securitisations in KfW Group's portfolio

Securitisations had a par value of around EUR 6.2 billion as of 31 December 2023. Accounting for the mark-to-market valuation of the securities reported at fair value and impairments, the portfolio had a book value (including pro rata interest) of around EUR 6.2 billion. The following tables present the composition of the securitisation portfolio by asset class, rating grade and geographical distribution.

Geographical breakdown of the underlying asset pool (based on par value)

	31 Dec. 2023	31 Dec. 2022
	%	%
Europe	100.0	99.9
World	0.0	0.0
North America	0.0	0.1
Africa	0.0	0.0
Asia	0.0	0.0

Exposure based on par values

	ABCP	Auto-ABS ¹⁾	RMBS	Other securitisations	Total as of 31 Dec. 2023	Total as of 31 Dec. 2022
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	3,839	1,637	504	187	6,167	6,040
Non-investment grade	0	0	0	0	0	0
Watch list	0	0	0	0	0	0
Default	0	0	0	7	7	7
	3,839	1,637	504	194	6,174	6,047

¹⁾ Auto ABS are based on receivables from automotive financing agreements.

⁸⁾ Net exposure is the economic loss that potentially occurs in the event of an economic or political default event.

The portfolio volume increased slightly compared to the volume of 31 December 2022 (nominal value around EUR +0.1 billion). The increase largely relates to the investment grade portfolio. In terms of the geographical breakdown of the underlying asset pool, the entire portfolio remains almost fully attributable to Europe, with Germany accounting for the lion's share.

EQUITY INVESTMENT RISK

In managing group equity investment risks, the group differentiates between risks from equity investments at operational level and strategic equity investments:

Equity investments (operational level)

Undertaking equity investments at an operational level is part of the group's promotional mandate. Accordingly, equity investments are made in connection with domestic and European investment financing and in the business sectors KfW Development Bank, DEG and Export and project finance, and fund investments of KfW Capital. KfW's group-wide basic rules for equity investments at an operational level are set out in guidelines. Specific rules tailored to certain segments of equity investments are also set out in portfolio guidelines, working instructions or risk guidelines. Risks are measured at the individual loan commitment level for operational equity investments using models specified for this purpose. Equity investment portfolio risks are monitored quarterly in the group risk report.

Strategic equity investments

Strategic equity investments support KfW's mandate of providing an efficient and sustainable promotional offering. In addition to reinforcing and expanding core competencies, the focus of this investment type is on complementing KfW's business sectors. Strategic equity investments normally have a long-term holding period. KfW also makes strategic equity investments in accordance with Article 2 (4) of the KfW Law (mandated transactions). The Federal Government mandates such equity investments to KfW because the Federal Republic of Germany has a state interest in them.

Dedicated organisational units are responsible for strategic equity investments based on an equity investment manual that describes legal bases, strategies, principles, procedures and responsibilities of equity investment management. Acquisitions and disposals of and changes to strategic equity investments are subject to defined processes as well as authorisation by the Executive Board and, in the cases covered under the KfW Bylaws, authorisation by the Board of Supervisory Directors. Moreover, acquiring a strategic equity investment in excess of 25%, creating or increasing such an equity investment or fully disposing of it requires authorisation by the Federal Ministry of Finance in accordance with Section 65 (3) of the Federal Budget Code (*Bundshaushaltsordnung – "BHO"*). Strategic equity investments and their individual risks are monitored and presented to the Executive Board as part of an annual equity investment report, as well as in ad hoc reports, if necessary. The individually defined strategies for the equity investments are updated annually. Moreover, the group is normally represented in the supervisory bodies of its strategic equity investments.

As of 31 December 2023, the group's equity investment portfolio consists of fund investments of KfW Capital with an economic capital requirement of EUR 668 million, equity investments of DEG including promotional business with an economic capital requirement of EUR 745 million, and other promotional business (economic capital requirement: EUR 558 million).

The EUR 439 million increase in capital requirement compared to the previous year is largely due to KfW Capital's significant business growth, in addition to methodological effects.

MARKET PRICE RISK

KfW Group primarily measures and manages market price risk on a present-value basis. The main drivers of market price risk are interest risk (consisting of the jointly analysed risk subtypes: interest risk, tenor and cross-currency basis spread risk), interest rate volatility risk, foreign currency risk and sector-specific spreads for positions with credit spread risk.

Market price risk within the group required a total of EUR 5.61 billion in economic capital as of 31 December 2023. This is EUR 0.80 billion more than as of 31 December 2022. Volatile markets, the expansion of the strategic interest rate risk position and the further development of the VaR model have the effect of increasing overall market price risk, particularly interest risk. Interest rate volatility risk was lower due to an adjustment in calculation methodology.

Economic capital requirement for market price risk

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Interest risk¹⁾	5,453	4,268
Interest risk	5,415	4,026
Tenor basis spread risk	348	404
Cross-currency basis spread risk	483	489
Interest rate volatility risk	251	426
Foreign currency risk	590	439
Credit spread risk	870	816
Breakdown effect	-1,549	-1,138
Market price risk	5,615	4,811

¹⁾ Due to breakdown effects in interest risk, the **risk subtypes** do not add up to the total interest risk

Value-at-risk approach

The economic capital requirement is calculated using a VaR calculation across the various subtypes of market price risk using a uniform method. Historical simulation is used as the VaR model. The model consists of two components – a reactive short-term and a conservative long-term component. The reactive component is based on a historical simulation over a one-year market data history (250 scenarios) and thus in particular reflects current market events. The conservative component is based on a historical simulation over a five-year period selected from a long-term history, which includes stress periods and thus incorporates a long-term perspective.

The uniform holding period is twelve months, with time scaling based on the shorter holding period of the respective component (one day or five days). In addition, scaling to the target quantile (99.9%) is carried out on the basis of a 97.5% quantile determined using the respective historical simulation. The economic capital requirement ("ECAP") for market price risk and risk subtypes is calculated from the maximum of the two components.

VaR indicators are determined for each of the following subtypes of market price risk: interest risk, tenor and cross-currency basis spread risks, foreign currency risk, interest rate volatility risk and credit spread risk. The total VaR is also calculated, taking account of breakdown effects between the aforementioned risk subtypes. The total VaR, interest risk, interest rate volatility risk, credit spread risk and foreign currency risk are limited.

Interest risk

Yield curve grid points serve as the basis for historical simulation to quantify interest risks. These implicitly include interest risk as well as tenor and cross-currency basis spread risks. In contrast, interest rate volatility and credit spread risks are explicitly not included in interest risk, but are modelled separately and reported using separate key VaR indicators. The capital requirement for interest risk increased by EUR 1,185 million to EUR 5,453 million as of 31 December 2023.

Interest rate volatility risk

Implied volatilities are used as risk factors to determine the interest rate volatility risk. These are applied in modelling interest rate options (e.g. floors in the variable-rate lending business). The economic capital requirement for these risks is calculated in the same way as for other sub-types of risk, using historical simulation (see VaR approach section). Interest rate volatility risk arises primarily as a side effect of the original lending business and is limited by means of an ECAP sub-limit. The ECAP requirement for interest rate volatility risk is not allowed to exceed the present value of the corresponding interest rate options held by KfW. The capital requirement for interest rate volatility risk was EUR 251 million as of 31 December 2023.

Foreign currency risk

The economic capital requirement for foreign currency positions is also calculated using historical simulation. The capital requirement for foreign currency risk stood at EUR 590 million as of 31 December 2023.

Credit spread risk

This risk is mainly determined by the securities portfolio. The economic capital requirement for this risk type is calculated in the same way as for other risk types, using historical simulation. The economic capital requirement for credit spread risk as of 31 December 2023 was EUR 870 million. Credit spread risk increased by EUR 54 million year on year.

Stress testing

In addition to the calculation of the ECAP requirement based on the VaR model of historical simulation, the effects of extreme market situations on the present value and VaR target variables are determined by means of stress tests.

OPERATIONAL RISK

In accordance with Article 4 (1) no. 52 of the CRR, the group defines operational risk as the negative impact on net assets, earnings position or liquidity that can result from inadequate or failed internal processes, people and systems or from external events. Operational risks are monitored by a central Risk Controlling unit and the methodology behind the models and procedures used for measurement and monitoring is adjusted on a regular basis. Moreover, the following operational risk subtypes are defined as material and are also monitored by specialised second line of defence functions: compliance risk, information security risk, business continuity risk and legal risk⁹⁾.

The aim of management and control of operational risk is the proactive identification and averting of potential losses for the group, i.e. to make emergencies and crises manageable and to secure the group's structural ability to remain operational even in the event of loss of key resources.

Management of risks is decentralised and performed within the business sectors and subsidiaries by the respective directors or members of management, who are supported by the respective sector coordinators for Operational Risk and Business Continuity Management. Monitoring and communication of risks is performed on a cross-functional basis by Risk Controlling (central OpRisk Controlling) and Transaction Management (central Business Continuity Management). These staff develop the relevant methods and instruments for identifying and assessing risks and monitor their group-wide uniform application. The model for calculating the economic risk resulting from operational risks is also validated in the Risk Controlling department.

Events in the group are recorded in an OpRisk event database and updated when changes/developments occur. After each quarter, recorded loss events and any measures introduced as a result are reported to the relevant departments. The Executive Board, the Board of Supervisory Directors and the Operational Risk Committee are briefed monthly or quarterly as part of internal risk reporting. Ad hoc reports are also made if a loss exceeds a certain level.

In addition, potential operational risks are identified based on risk scenarios that are collected from across the group. Operational risks are evaluated on the basis of expert assessments in combination with internal and external loss events as well as internal data (transactions, ratings, etc.), which are backed by a distribution assumption for loss frequency and loss amount. The results of the annual risk assessment and the calculated risk scenarios are reported to the Operational Risk Committee and the Executive Board. As part of the risk assessment, the business areas check the implementation of additional risk-mitigating measures (e.g. checks as part of the internal control system, or "ICS").

Where adequate monitoring of operational risks using metrics is possible, risk indicators are used. Compliance with centrally prescribed risk-mitigating requirements (e.g. training course participation, deadlines, escalation procedures) is monitored by the overarching Controlling function using business area-specific OpRisk information dashboards to ensure escalation across all levels up to the Executive Board in the event of non-compliance.

The 2023 risk assessment was carried out from July to November 2023. The overall effect on the ECAP for the year was a reduction of EUR 13 million.

Business continuity risk

Business continuity risk refers to the negative impact on net assets, earnings position and liquidity due to the non-continuation of time-critical business processes in the event of a business interruption resulting from a previous failure to fulfil business continuity requirements (business continuity management or "BCM"). The aim of BCM is to make provisions for time-critical business processes in case of emergency.

⁹⁾ Other risk subtypes are: service provider risk, personnel risk, personal and physical security risk, conduct risk, data protection risk and operational risk from adjustment processes.

BCM is implemented if a business interruption occurs due to internal or external events. This is an integrated management process which covers the four outage and loss scenarios: site outages, IT system outages, staff outages and service provider outages. BCM incorporates preventative components (emergency preparedness) and reactive components (emergency and crisis management).

For the purpose of BCM, business processes are analysed and categorised based on how time-critical they are, and the supporting resources for each case examined accordingly. Identifying such time-critical business processes and their dependency on supporting resources forms the basis for effective BCM. Individual measures are developed for these business processes and their supporting resources, in order to be able to guarantee the required availability and reduce business risks. These include emergency workstations, emergency plans, communication tools and alerts/alarms. KfW Group's crisis team takes responsibility for overall crisis management if necessary. It practises emergency and crisis organisation teamwork in regular crisis team tests. Furthermore, due to the uncertain electricity and gas supply situation during the winter of 2022/2023, measures were developed for dealing with a potential large-scale and lengthy power outage (blackout).

Information security risk

Information security risk ("IS risk") refers to the uncertainty involved in achieving the respective protection targets (confidentiality, integrity and availability) of information assets and the resulting potential adverse effect on the group's net assets, earnings position and liquidity. An IS risk occurs precisely when a threat (e.g. a cyber attack) is accompanied by a vulnerability (e.g. planned protection measures that have not been implemented). Cyber risks are risks that occur when navigating an interconnected digital environment (cyberspace). Cyberspace refers to all information technology networks connected to the Internet (or comparable networks) involving a digital and/or electronic information asset of the bank. For the group, cyber risks are part of the systemic IS risks. Information security risks are associated with KfW's operating activities. The aim of risk management is to mitigate the impact of potential threats, reduce the probability of their occurrence and thus counteract risks through risk-mitigation measures. The information security management system ("ISMS") is based on the international standard ISO 27001. IS risks are controlled with the aid of ISMS risk indicators and performance benchmarks.

Compliance risk

Compliance risk refers to the risk of legal or regulatory sanctions or negative effects on net assets, earnings position and liquidity arising from non-compliance with external or internal requirements, voluntary commitments or legal regulations, which contribute to the sub-aspects of operational compliance (fraud and corruption risk, risk of other criminal activities, securities compliance and conflict of interest risk, money laundering/terrorist financing risk, embargo and sanctions risk, tax compliance risk) or which fall under the overall MaRisk compliance process (in accordance with MaRisk AT 4.4.2.).

Legal risk

Legal risk refers to negative effects on net assets, earnings position and liquidity arising from the infringement of or non-compliance with formal or substantive laws insofar as this leads to legal disputes or action to avoid legal disputes. Infringement or non-compliance may be due in particular to legal adjustments/changes with retroactive effect, misinterpretation or misapplication of formal or substantive laws or incorrect drafting of agreements.

KfW Group manages its risk appetite with regard to legal risks on a primarily qualitative basis, supplemented by individual quantitative elements, as is standard for the market. The core of qualitative management is process-integrated legal advice from in-house counsel, involving external law firms, if necessary. This is accomplished for the group on the basis of the policies of the relevant KfW subsidiaries (KfW IPEX-Bank, DEG and KfW Capital), which are based on the policies of KfW, through the centralisation of certain key legal issues at KfW and, in general, through the Legal Board established for this purpose.

A group-wide key risk indicator has been defined as a quantitative control element, which is essentially focused on monitoring risks arising from certain (impending) legal disputes.

REPUTATIONAL RISK

Reputational risk is the risk that the perception of the group from the point of view of the relevant internal and external stakeholders will deteriorate for the long term with a negative impact on KfW Group. This negative impact could lead to a decrease in KfW Group's net assets, earnings or liquidity (e.g. decline in new business) or may be of a non-monetary nature (e.g. difficulty in recruiting new staff). Reputational risk may arise as a consequence of other types of risk, or independently.

Reputational risks were not classified as material in the 2023 risk inventory. Such risks are evaluated and managed on a qualitative basis. No capital backing is currently provided as part of calculating risk-bearing capacity. This reflects both stakeholders' expectations and the bank's self-image of adhering to all relevant ethical, governance, environmental and compliance standards. This also applies irrespective of previously unobserved or potential adverse effects on net assets, earnings position or liquidity due to reputational events.

Moreover, as part of risk identification, the central reputational risk control function coordinates qualitative reputational risk assessment and creates a risk profile outlining the group's greatest reputational risks relating to the bank's most important stakeholders. In addition, reputational risk events that have occurred are reported on an ongoing basis.

PROJECT RISK

Project risks were not classified as material in the 2023 risk inventory. Original project risk comprises, in particular, planning assumptions that turn out to be inaccurate. Project risk has implications for the achievement of project/building block objectives with regard to cost, time and scope (e.g. new technical requirements and time constraints arising from parallel projects/change activities in building blocks). Managing project risk is part of building block management both during building block planning and during the execution of change activities in building blocks.

LIQUIDITY RISK

Liquidity risk in the narrower sense (synonymous with insolvency risk) is the risk of a lack of liquidity on the part of an institution or market. The liquidity gap creates the risk that payment obligations cannot be met, cannot be met on time or cannot be met in full.

The primary objective of liquidity management is to ensure that KfW Group is capable of meeting its payment obligations at all times. KfW is available as a contractual partner for all commercial transactions of its subsidiaries, particularly for their funding. For this reason, the liquidity requirements of the subsidiaries are included both in KfW Group's funding plans and in the liquidity maintenance strategy.

Liquidity risk is measured on the basis of economic scenario analyses. Moreover, maximum liquidity gap limits (outflows on a monthly and yearly basis), available liquidity (liquidity potential) and the difference between the average residual maturity of inflows and outflows (maturity gap) are monitored. On the basis of the KfW Law, KfW's liquidity risks are limited by the utilisation threshold in accordance with Article 4 of the KfW Law. The utilisation threshold compares current and non-current liabilities and must not exceed 10%. Internal indicators relating to the liquidity situation are based on comparing liquidity requirements and liquidity potential as a ratio in stress scenarios of differing severity. No capital is currently allocated as part of calculating risk-bearing capacity.

INTERNAL LIQUIDITY ADEQUACY ASSESSMENT PROCESS

The internal liquidity adequacy assessment process ("ILAAP") principle describes the management and monitoring of KfW Group's liquidity risk position. The procedure established by the institution serves to identify, measure, manage and monitor liquidity. The aim of the ILAAP is to ensure liquidity and avoid liquidity bottlenecks. It also assesses internal governance and institution-wide controls.

Insolvency risks are mainly limited through economic liquidity risk ratios and limits for liquidity potential and liquidity gaps. The aim of the liquidity risk strategy is to preserve the ability to meet payment obligations at all times and when due, even in stress scenarios.

Internal measurement of liquidity risk is based on scenario calculations. This approach first analyses the expected inflow and total outflow of payments for the next twelve months based on business already concluded. This baseline cash flow is then supplemented by planned and estimated payments (e.g. borrowings from the capital market, expected liquidity-related loan defaults or planned new business). The result provides an overview of the liquidity required by KfW Group over the next twelve months. The liquidity required is calculated for different scenarios. In this respect, market-wide and institution-specific risk factors are stressed and an evaluation is made of the impact on KfW Group's liquidity.

Parallel to the above approach, KfW Group also determines the available liquidity potential, which largely consists of KfW's account with the Bundesbank, repurchase agreement assets, the liquidity portfolio and the volume of commercial paper that is regularly placeable on the market. The available liquidity potential is subjected to stress analysis in the same way as the other cash flow components. The ratio of cumulative required liquidity to the cumulative available liquidity potential is calculated for each scenario. This figure may not exceed the value of 1 in any scenario for any period. The prescribed horizon in the normal case scenario is twelve months, in the stress case six months, and in the two worst case scenarios, three months. The scenario assumptions are validated on an annual basis.

The indicators are calculated and reported to the Market Price Risk Committee on a monthly basis. The following table presents the risk indicators for the scenarios as of 31 December 2023:

KfW liquidity risk indicators

	31 Dec. 2023	31 Dec. 2022
	Indicator	Indicator
Normal case	0.37	0.23
Stress case	0.37	0.28
Worst case (institution-specific)	0.36	0.32
Worst case	0.59	0.48

The internal liquidity risk indicators remained below the internal limit of 1 throughout the year.

KfW continued to support the energy sector through the extension of loans on behalf of the Federal Government in 2023. This funding requirement was addressed through a refinancing facility via the Economic Stabilisation Fund (Wirtschaftsstabilisierungsfonds – “WSF”) and liquidity coverage potential provided by the German Finance Agency in the form of ECB-eligible German government securities.

Current funding environment

In a capital market environment characterised by rising interest and high inflation rates, KfW generated a total issue volume (net proceeds) of EUR 90.2 billion on the international capital markets in financial year 2023 (2022: EUR 89.4 billion). There were 186 individual transactions (2022: 206). KfW issued bonds in a total of ten different currencies, with around 83% of long-term borrowing taking place in the two main funding currencies – euros and US dollars. The share of bonds denominated in euros was 54% in 2023 (2022: 65%). At 29%, the share of bonds denominated in US dollars was comparatively high (2022: 19%). In addition, a total of EUR 6.9 billion in funds (net proceeds) was raised through the WSF in 2023 (2022: EUR 31.6 billion), of which EUR 4.9 billion was used to fund support measures for energy suppliers and EUR 2.0 billion was used to fund the coronavirus special programmes. The outstanding volume of funding raised via the WSF totalled EUR 36.3 billion as of 31 December 2023, of which around EUR 12.8 billion was for support measures for energy suppliers and EUR 23.5 billion was for funding the coronavirus special programmes.

KfW issues commercial paper (“CP”) with maturities of up to one year on the money market via two CP programmes. The programme volume of the Multi-Currency Commercial Paper programme, also known as the Euro Commercial Paper (“ECP”) programme designed for global investors amounted to EUR 90 billion. The nominal volume issued under this programme at EUR 72.4 billion was lower in 2023 than in the previous year (2022: EUR 116.5 billion); however, the average maturity of the issues was higher at 144 days (2022: 131 days). The volume outstanding as of the reporting date 31 December 2023 was EUR 29.6 billion. The programme volume of the U.S. Commercial Paper (“USCP”) programme came to USD 30 billion in 2023. KfW Group uses this programme, which is designed specifically for the US market, to cover a large portion of its need for short-term funds in US dollars. The nominal volume issued under the USCP programme was also lower than in the previous year at USD 40.8 billion (2022: USD 64.2 billion). The average maturity of the issues declined again to 52 days (2022: 56 days). The outstanding volume amounted to USD 8.8 billion as of 31 December 2023.

CONCENTRATION RISK

Concentration risk refers to the risk of negative effects on net assets, earnings position and liquidity arising from particularly large individual risk exposures or increased correlations of risk exposures. A distinction must be made between intra-risk concentrations (affecting one type of risk) and inter-risk concentrations (affecting different types of risk). In line with the “on-lending principle” enshrined in the KfW Law, KfW’s risk profile is essentially characterised by a tendency towards high exposures to individual bank counterparties and the financial sector as a whole. The resulting concentration risks are limited based on the defined risk appetite and are subject to stress tests. Additionally, KfW’s business model as a promotional bank inevitably involves concentrations of earnings, which are addressed by monitoring the risk appetite for performance and earnings.

REGULATORY RISK

Regulatory risks for KfW Group arise primarily from an increase in requirements regarding minimum capital ratios and from possible negative effects on the group’s business model due to future changes in the regulatory environment. These include the costs resulting from the implementation and ongoing fulfilment of the additional requirements as well as the associated capital tie-up. As part of the capital adequacy process, regulatory risk is addressed by means of a regulatory scenario through conservative traffic light limits as a management and early warning instrument with regard to regulatory capital requirements. In addition, the capital adequacy of KfW Group is reviewed with the owners as part of its coordinated capital planning. Moreover, KfW actively keeps track of changes in its legal environment, which allows the group to identify new regulatory requirements and determine necessary action.

INTRA-GROUP RISK

Due to the risk relevance for the group and the objective of consistent group management, the risks of KfW IPEX-Bank, DEG and KfW Capital are fully taken into account as part of group risk management. For example, the business activities of these subsidiaries are applied to the group-wide limits on a look-through basis and included in the capital allocation and risk-bearing capacity calculation of the group. In addition, representatives of the subsidiaries are members of the group’s risk committees. KfW also monitors the risk situation of its subsidiaries on a stand-alone basis. The management of each subsidiary reports regularly to the responsible members of the Executive Board on risk, as well as finance and strategy. KfW’s Executive Board is also informed of the intra-group risk situation in a quarterly report.

MODEL RISK

At KfW, models are an essential component of risk, capital and business management. Using models means there are model risks, which can affect other types of risk such as credit or market price risk. Model risk was therefore once again identified as a significant overarching risk in the 2023 risk inventory, since direct and significant implications on net assets, earnings position and liquidity can arise from weaknesses or errors at both model and model interaction level. Identifying and managing model risks is aimed at ensuring adequate control of model risks and timely and risk-oriented elimination or compensation of (systematic) model weaknesses that have been identified, such as through independent validation, and at promoting an appropriate risk culture for dealing with models. Model risk is compensated by capital buffers in the economic risk-bearing capacity and individual adjustments at the model level, such as valuation reserves and manual adjustments, or by taking margin of conservatism (“MoC”) premiums into account in model parameterisation. The annual model risk report gives the KfW Executive Board an overview of the models in focus, as well as a general assessment of model risks at KfW. The ongoing management of model risks is carried out both via active performance of the individual model roles and through discussions and decisions in the risk committee meetings that regularly take place.

Additional internal control procedures

Process-integrated internal control system (ICS)

The aim of KfW Group’s ICS is to use suitable principles, measures and procedures to ensure the effectiveness and profitability of business activities, compliance with the legal requirements applicable to KfW Group, the accuracy and reliability of external and internal accounting, and the protection of assets.

There are group-wide ICS rules as well as binding group-wide minimum requirements of the ICS. KfW Group’s ICS is based on the relevant legal (bank regulatory) requirements¹⁰⁾, in particular those set forth in the KWG and MaRisk, and the market standard COSO model¹¹⁾.

¹⁰⁾ See Section 25a (1) no.1 KWG, MaRisk AT 4.3, and Sections 289 (5), 315 (2) no. 5, 324, and 264d HGB.

¹¹⁾ COSO = Committee of Sponsoring Organizations of the Treadway Commission

The KfW Executive Board holds overall responsibility for the group's internal control system. At KfW IPEX-Bank, KfW Capital and DEG, the respective company management holds overall responsibility. Design and implementation at the different corporate levels are the responsibility of the relevant managers according to the organisational structure.

In accordance with the COSO model, the ICS consists of the five following interrelated components: control environment, risk assessment, control activities, information/communication and monitoring/auditing. These components extend to all KfW Group's organisational entities, functions and processes.

The control environment is the environment within which KfW Group introduces and applies rules. Risk assessment includes the identification, analysis and evaluation of risks that result from implementing corporate strategy. Control activities are aimed at achieving corporate objectives effectively and detecting or minimising risks. A KfW Group information and communication policy is aimed at comprehensively providing all stakeholders with the information they need in the required detail to make decisions. Appropriate monitoring and audit mechanisms are in place to determine the functionality and effectiveness of the ICS.

Procedural rules form the basis of the ICS. These constitute the framework for a proper business organisation within KfW Group, in the form of a binding policy.

Workflow organisational measures and controls are intended to ensure that monitoring is integrated into processes. Monitoring measures integrated into processes serve to avoid, reduce, detect and/or correct processing errors or financial loss. The effects of any planned changes to operational processes and structures on the procedure and intensity of monitoring are analysed in advance.

KfW Group has implemented accounting-related controls to minimise the risk of error in stand-alone and consolidated financial statements and ensure the correctness and reliability of internal and external financial reporting. The accounting-related controls are part of the ICS.

The system is supplemented by the Compliance department, which defines and monitors compliance with relevant measures, on the basis of relevant rules and norms. The Compliance function performs regular process-based and accompanying monitoring of the relevant areas of the internal control system. The results of additional second line of defence units (OpRisk in particular) are included in monitoring and the further development of the internal control system.

To ensure the adequacy and effectiveness of the ICS, KfW regularly scrutinises and continually refines its standards and conventions.

A report is rendered annually to KfW Group's supervisory bodies. The adequacy and effectiveness of the ICS is also assessed by Internal Auditing on the basis of risk-based audits carried out independently of group procedures.

Compliance

The Executive Board bears the overall responsibility for compliance within the Group. The Executive Board delegates the associated tasks to the Compliance department. The officers appointed by the Executive Board for the relevant areas of responsibility are located in the Compliance department. They include, in particular, the group money laundering officer, the fraud officer (central unit in accordance with Section 25h KWG) and the company data protection officer.

The Compliance organisation is structured in accordance with the Three Lines of Defence model and as the second line of defence, it is aligned with the requirements for a MaRisk compliance function. In this context, group compliance has in particular included measures to adhere to data protection regulations and tax compliance, as well as measures to prevent insider trading (securities compliance), general conflicts of interest, money laundering, terrorist financing and other criminal activities, to comply with sanctions and embargo regulations, and to monitor legal requirements and the associated implementation measures. There are therefore binding rules and procedures that influence the day-to-day implementation of values and the corporate culture, which are updated regularly and on an ad hoc basis to reflect current law as well as market requirements. The aim is to manage and assess compliance risks as part of non-financial risks by means, among other things, of key indicators (e.g. for financial sanctions) in line with the central requirements for operational risk management. Since the entry into force of the material requirements of the

Supply Chain Act (“Lieferkettensorgfaltspflichtengesetz”) on 1 January 2023, the compliance organisation has also acted as a central point for recording, monitoring and controlling compliance with the related requirements. Within the scope of its duties as second line of defence, Compliance is responsible for and authorised to implement statutory or regulatory requirements and Executive Board decisions, to analyse individual cases/irregularities, to coordinate necessary measures and, where applicable, to initiate ad hoc measures to limit damage. In relation to all other areas of the group, the Compliance department performs its tasks autonomously and independently and is not subject to any instructions, in particular with regard to analysis (including evaluation of results), monitoring activities, defining and implementing rules and measures, and reporting. In order to perform its duties, Compliance has a complete and unrestricted right to information, inspection and access to all premises, documents, records, audio recordings and systems.

More intense monitoring of sanctions requirements resulting from Russia’s war of aggression against Ukraine is being implemented, among other things, by means of a specially established task force headed by Compliance. In addition, to the extent necessary, internal audit and monitoring processes of the compliance organisation have been adapted to the changed risk situation. Compliance monitors legal and regulatory requirements on an ongoing basis and, as necessary, adapts them to the changed risk situation in coordination with the affected functions of the first line of defence.

Internal Auditing

Internal Auditing is an instrument of the Executive Board. As an entity that works independently of KfW Group procedures, it audits and assesses all of KfW Group’s processes and activities to identify the risks involved and reports directly to the Executive Board.

With a view to risk management processes, Internal Auditing performed an audit in the reporting year of the decentralised risk management processes and central aspects of risk management and risk control which were relevant group-wide. With regard to risk management, the focus areas of the audit included the application, operation and further development of the models used in risk management across all risk types, as well as KfW’s combined risk assessment within the ICAAP. Additionally, risk-type-specific audits were performed on the management of operational risk, market price risk and liquidity risk. Audits of key second line functions were also part of the 2023 audit plan. The risk management projects that Internal Auditing assessed as material were supported by Internal Auditing, maintaining the latter’s impartiality and avoiding any conflicts of interest.

Moreover, Internal Auditing continued to monitor the ongoing development of risk measurement procedures in 2023 by attending meetings of decision-making bodies (as a guest).

Internal Auditing also functions as KfW Group’s internal auditing department. It is involved in subsidiaries’ audit planning. In addition to the audit results obtained independently in group-wide audits, it also incorporates the audit results of third parties (group auditors, Federal Financial Supervisory Authority, the internal auditing departments of the other group companies) in its group-wide internal audit reporting, in the tracking of measures and as a source of information when preparing its own audits.

Forecast and opportunity report

General economic environment and development trends

KfW expects global real gross domestic product (“GDP”) to grow by 2.9% year on year in 2024, after increasing by 3.1% in 2023, according to International Monetary Fund (“IMF”) estimates. The expected growth rate of real GDP in 2024 for industrialised countries is below the previous year’s rate, while for developing countries and emerging economies, it is forecast almost at prior-year level (see table “Gross domestic product at constant prices”). The IMF’s forecasts show that global consumer price inflation is expected to fall from an annual average of 6.8% in 2023 to an annual average of 5.8% in 2024. KfW agrees with the IMF’s assessment that economic outlooks will be determined by the longer-term consequences of the COVID-19 pandemic and the war in Ukraine, on the one hand, and the effects of global monetary policy tightening to combat inflation and the withdrawal of fiscal policy support against the backdrop of high levels of debt, on the other.

Gross domestic product at constant prices

Year-on-year change	2023 estimate in %	2024 forecast in %	2013–2022 average in %
Global economy*	3.1	2.9	3.1
Industrialised countries*	1.6	1.1	1.8
Developing countries and emerging economies*	4.1	4.0	4.0

* Aggregation of annual GDP growth rates at each country’s constant prices based on the shares of each country’s GDP valued at purchasing power parity (“PPP”) in the corresponding aggregate. Grouped into industrialised countries and emerging economies based on IMF classification. The average is calculated as the geometric mean of annual growth rates.

Development going forward is still fraught with major uncertainties, as the IMF points out. For example, there is a risk that growth in China will weaken more than expected due to the crisis in the real estate sector. Moreover, inflation, which remains largely above central banks’ targets, could prove to be stubborn despite the decline in inflation rates. Higher inflation expectations and a shortage of labour could be contributing factors. Commodity prices, in particular, may be more volatile than at present due to weather events fuelled by El Niño as well as climate-related and geopolitical shocks. Increasing geoeconomic fragmentation and export restrictions could also contribute to higher volatility. If the conflict between Israel and Hamas escalates and spreads to other countries and players, this may result in rising crude oil and gas prices, increasing risk aversion in the financial markets, and disruptions to supply chains. Higher energy and food prices could also foster social unrest.

A potential reassessment of monetary policy outlooks by the financial markets may tighten financing conditions and increase interest risks. This could also result in greater debt stress in developing countries and emerging economies. There is also a risk that it will not be possible to rebuild fiscal buffers in time for the next shock or that necessary fiscal consolidations might stifle growth, if designed too restrictive.

There is also a possibility that the global economy grows faster than forecast if inflation declines more rapidly than expected, thereby boosting the purchasing power of private households and allowing monetary easing to take effect more quickly.

For the **euro area**, KfW expects price-adjusted GDP to grow by 0.8% in 2024. This means that the anticipated growth rate will increase slightly, by 0.3 percentage points year on year, but remain below the average of 2013–2022.

If this projection proves accurate, total economic output for 2024 will measure 4.2 percentage points above the pre-pandemic level of price-adjusted GDP, i.e. that of 2019 (see table “Gross domestic product at constant prices, year-on-year change”). In line with the European Commission, KfW regards consumer demand from private households as the driver of economic growth compared to the previous year. The increase in private households’ real disposable income due to declining inflation and income growth boosts their consumption. In agreement with the European Commission, KfW expects a simultaneous recovery in imports and exports in 2024. Net exports are therefore not likely to contribute to GDP growth. The tight financing conditions resulting from restrictive monetary policy will also hamper investment growth in the euro area. Despite the positive effects of the NextGenerationEU programme, KfW, in line with the ECB projection, anticipates that fiscal policy will dampen economic growth overall due to the expiring support measures in the wake of the energy crisis.

KfW estimates that, among the four largest euro area countries, Germany and Italy will record relatively weak growth below the euro area average due to their relatively important industrial sectors, while France and Spain, compared to the euro area as a whole, can be expected to achieve slightly above-average growth.

KfW expects price-adjusted GDP in **Germany** to increase by 0.6% year on year in 2024. Price-adjusted GDP in 2024 is therefore expected to be higher than in 2019, the year before the outbreak of the COVID-19 pandemic (see table “Gross domestic product at constant prices, year-on-year change”). In view of the above forecasts for the global economy and assuming that private households’ purchasing power will increase as a result of a decline in headline inflation and a simultaneous rise in nominal wages, KfW assumes that among GDP expenditure components private consumer spending will grow in 2024. Corporate investments are also expected to grow, whereas housing construction will experience a price-adjusted decline. Of the GDP value-added components, KfW expects the price-adjusted gross value added of the construction sector to contract in 2024. The average annual number of persons in employment located in Germany will rise in 2024, with an increase in the skilled labour shortage being expected.

Gross domestic product at constant prices, year-on-year change

	2023	2024 forecast	2013–2022 average	2024 forecast
	in %	in %	in %	2019 index = 100
Euro area	0.5	0.8	1.4	104.2
Germany	–0.3	0.6	1.2	101.3
USA	2.5	1.0	2.3	109.2

In addition to geopolitical and geoeconomic risks in connection with Russia’s invasion of Ukraine, the conflict in the Middle East, tensions between China and Taiwan, bottlenecks and abrupt price increases on the energy markets, an economic slump in China caused by the real estate crisis there and environmental and natural disasters could result in lower growth in German price-adjusted GDP than forecast by KfW for 2024, or even in a contraction.

There is a chance of higher growth in price-adjusted GDP than KfW’s forecast for 2024 in the event of an unexpectedly rapid supply-side-driven decline in inflation and thus plummeting interest rates. This could give the economy new impetus, particularly via the investment channel. In such case, demand for credit would likely also increase.

In response to the ruling of the Federal Constitutional Court of 15 November 2023 on the Second Supplementary Budget Act 2021, the Federal Chancellor, the Federal Minister for Economic Affairs and the Federal Minister of Finance reached a political agreement on 13 December 2023 on additional consolidation measures that affect the Federal Government’s core budget and the Climate and Transformation Fund, among other things, and that have been incorporated into the draft of the second Budget Financing Act 2024. Similar to Deutsche Bundesbank, KfW assumes that there will be no significant need to revise the growth forecast for price-adjusted GDP in 2024 as a result of these fiscal policy measures.

The ECB has raised the deposit rate by a total of 450 basis points to 4.0% since July 2022. KfW assumes that key interest rates will not rise any further but will remain at this level until mid-2024. The continued decline in the inflation rate towards the ECB's 2% target over the course of the year should create the conditions for the first key interest rate cuts in the second half of 2024. The ECB will continue to trim its balance sheet in 2024. Consequently the redemption amounts of maturing securities from the Asset Purchase Programme ("APP") have not been reinvested since July 2023. This results in an average monthly balance sheet reduction of around EUR 30 billion. In the case of the Pandemic Emergency Purchase Programme ("PEPP") initiated during the COVID-19 pandemic, the ECB Governing Council announced that some redemptions will continue to be reinvested until the end of 2024 but will be run off the balance sheet from July 2024 onwards, trimming the PEPP portfolio by an average of EUR 7.5 billion per month. Repayment of the targeted longer-term refinancing operations ("TLTRO III") also continues. In addition to the regular maturities, the banks can make early voluntary repayments of the TLTRO funds borrowed from the ECB also in 2024. The slope of the euro yield curve (the spread between ten and two-year EUR swap rates) is currently inverted due to the considerable key interest rate hikes. KfW expects the inverted yield curve to revert somewhat over the course of 2024 due to the expected key interest rate cuts, but also expects the curve to still remain in negative territory towards year-end.

As inflation is also slowly receding in the USA and its economy is likely to cool off, KfW expects the Federal Reserve to cut key interest rates over the course of 2024. As in the euro area, KfW expects the US yield curve (the spread between ten and two-year USD swap rates) to steepen on average in 2024 but to remain inverted for the whole of the year.

New business projections

Overview

In the central control variable for its net assets, KfW Group projects a new business volume of EUR 89.2 billion for 2024. This reflects a normalisation of new business development in the primary business and additional promotional business volume from heating promotion in the domestic promotional business, as well as strong commitment growth in the business sector Export and project finance and moderate commitment growth at DEG. The business sector KfW Development Bank expects the promotion to stay at the level projected for 2023 or to decrease slightly. These new business projections may change due to economic and political measures of the Federal Government (e.g. execution of mandated transactions). Amendments from the federal budget adopted for 2024 were not taken into account.

KfW is careful to avoid potential adverse effects on and risks to society and the environment in its promotional activities, and where possible attempts to reduce or offset such effects via suitable measures (inside-out perspective). Furthermore, KfW considers environmental changes, such as to the climate and biodiversity, social transformation and governance standards with an impact on the credit rating of KfW clients, as well as the effects of various climate scenarios on KfW's business model and risk profile (outside-in perspective). We do not expect these considerations to have any impact on the new commitment volume projected for 2024.

Domestic business

New business development is increasingly returning to normal following the exceptional period from 2020 to 2022, which was driven by the **Mittelstandsbank & Private Kunden (SME Bank & Private Clients)** business sector's special programmes in the context of the war in Ukraine and the COVID-19 pandemic. The business sector continues to expect further normalisation in its primary business for 2024. Additional new business volume of EUR 6.4 billion is estimated for the implementation of a grant and loan subsidy programme for transitioning to heating powered by renewable energy. Overall for 2024, new business volume of EUR 41.0 billion is expected in the primary business (including the implementation of heating promotion).

The business sector positions itself as a partner to the Federal Government and is divided into two segments by customer group. The SME Bank segment supports the German economy with a wide range of promotional programmes for commercial customers with various promotional priorities. The Private Clients segment supports education, energy efficiency in the construction and refurbishment of residential buildings, and also promotes the acquisition and construction of owner-occupied housing as well as accessible conversion/construction of homes. The necessary transformation towards renewable energy, the high level of investment required to achieve climate neutrality, the persistent uncertainty regarding the energy supply due to the ongoing war and the worsening consequences of climate change have a direct impact on relevant markets and customer groups in the business sector, while also constituting

an opportunity. First, new promotional objectives and approaches to expand renewable energy are emerging, which, among other matters, serve the transformation of companies in order to achieve environmental and climate targets. Second, promotion of energy-efficient buildings plays a key role in achieving the construction sector's climate targets. What is more, the issue of climate resilience is increasingly coming to the fore as climate change intensifies.

Following the expiry of the major COVID-19 emergency aid programmes and in the absence of foreseeable new mandated transactions in the fossil energy sector, the business sector **Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)** is once again focusing on promoting environmental and climate protection as well as on innovation and accelerating digitalisation. Core business of EUR 10.1 billion (before any special programmes) is projected for 2024.

The business sector is split into three business segments. With regard to customised financing for companies, the impact of the war in Ukraine and the rise in interest rates on the willingness and capacity of companies to take on debt for new investments is quite unfavourable in the short term. Despite the moderate economic recovery expected in Germany in 2024, potentially lower risk tolerance on the part of partner banks cannot be ruled out. This could result in greater demand for KfW's risk participation. In this context, the risk-bearing promotional products in the megatrends "climate change and environment" and "digitalisation and innovation" are achieving greater relevance and are therefore likely to meet with increased demand.

The demand for investment in municipal and social infrastructure remains strong given the central role municipalities play in meeting the challenges presented by the war in Ukraine and climate change. However, the budget situation of some municipalities, which may be strained at times, in conjunction with limited planning capacities and supply bottlenecks in the construction sector restricts their investment opportunities and loan needs. Additional federal and state grants can also be expected to fund measures to improve climate resilience, which also reduce the demand for loans. In contrast, energy suppliers are expected to make considerable investment efforts to bring about the energy and heating transition. The transformation of the energy supply systems entails considerable financing requirements, yielding the potential for a high demand for KfW loans.

Individual financing with financing partners in Germany and Europe, as well as funding of promotional institutions of the federal states ("LFI"), will continue to be characterised by a sound funding situation at partner banks. Demand for global loans to support leasing investments has improved after a temporary period of pandemic-induced restraint. At present, demand for export loan funding currently tends to be weaker for small and medium-sized projects.

The venture capital subsidiary **KfW Capital** invests in venture capital ("VC") and venture debt funds to improve the sustainable provision of venture and growth capital, thereby also strengthening Germany as an innovation hub for the long term. Strengthening the German VC market is necessary to tackle the deficit in the amount of VC investment in future technologies by international comparison. KfW Capital therefore continues to play an important role as a reliable partner to, and investor in, VC funds. The business sector provides more venture capital to the market through its own fund investments, which, at the same time, has a positive signalling effect on private investors. Particularly in the years when private investors were hesitant to raise funds, KfW Capital was able to successfully position itself as a reliable partner and financier of VC funds and thus of technology companies in Germany. The two programmes "ERP Venture Capital Fund Investments" and "ERP/Future Fund – Growth Facility" are the focus of KfW Capital's investment offering at its own risk. KfW Capital also acts as a financial portfolio manager for individual components of the Future Fund and as an investment broker and advisor in connection with the "German Growth Fund", also a Future Fund component.

"ERP Venture Capital Fund Investments" and "ERP/Future Fund – Growth Facility" will remain KfW Capital's two main own-risk programmes in 2024 as well. The business sector also plans to make direct investments in companies from 2024 in order to specifically target selected technology areas. Overall, new business volume of EUR 0.8 billion is anticipated in 2024. Narrowing the growth financing gap at individual company level gives KfW Capital an opportunity for direct involvement in attractive companies with high growth potential and to give a decisive boost to key future areas. KfW Capital is also continuing its activities as a financial portfolio manager under the Emerging Manager Facility ("EMF") and Growth Facility trust components, and as investment advisor in connection with the "German Growth Fund".

Financial markets

KfW Group bundles all funding activities along with its liquidity and operational market price risk management in the business sector **Financial markets**. Other tasks include carrying out holding arrangements on behalf of the Federal Government and mandated transactions in accordance with Article 2 (4) of the KfW Law as well as advising other group units on capital market matters and carrying out capital market transactions on behalf of other group units.

The digitalisation of financial market processes, such as through the German Electronic Securities Act (*Gesetz zur Einführung elektronischer Wertpapiere – “eWpG”*), and the use of trading platforms for money market, capital market and derivative transactions, opens up opportunities for KfW – not only in terms of improving operational efficiency, but also by enhancing its reputation and increasing its competitiveness in the financial markets. The eWpG essentially enables a dematerialisation of the securities certificate, thereby enabling the issuance of two types of electronic securities: central register and crypto securities. KfW issued its first central register security via Clearstream’s D7 post-trading platform in December 2022 and is now systematically developing this format for regular operations. The first tokenised bond is to be issued in 2024 which will not only test the second strand of the eWpG, but also represent the first issuance of a syndicated tokenised bond in the financial hub of Frankfurt.

The green bond portfolio volume had reached around EUR 2.4 billion at the end of 2023. The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (“BMUV”) and KfW decided to terminate the promotional mandate for the green bond promotional portfolio effective 31 December 2023. In order to reinforce KfW’s sustainability profile and its positioning as a sustainable issuer, KfW consistently develops its green bond issuance strategy and is further expanding the green bond programme as of 1 January 2024. The content of the new green bond framework has been further developed and places an additional strategic focus on biodiversity. In addition, international financings by KfW from Financial Cooperation and project and export financing can now be allocated to “Green Bonds – Made by KfW” for the first time. This enables KfW to respond to its investors’ desire for diversification. Moreover, sustainability-oriented information, including the impact data of KfW Group’s promotional business from the tranSForm project, is to be used in KfW’s external communication on capital market funding in future; firstly, for impact reporting on green bonds and, secondly, for holistic impact reporting on KfW bonds.

International business

Economic and geopolitical risks, the uncertainty associated with the war in Ukraine and the conflict in the Middle East, increased inflation and the effects of the global interest rate tightening cycle, as well as the expiry of economic recovery effects following the COVID-19 pandemic, are relevant for the business sector **Export and project finance**. There are opportunities in Europe and among the developing countries and emerging economies relevant for Export and project finance in regions and sectors with growth potential (e.g. digital infrastructure, digital networks, data centres, e-mobility, public transport, energy efficiency, and investments in transformation). Economic and sustainability programmes and programmes to bolster supply security may also stimulate demand for financing, particularly for infrastructure investments and transformation projects aiming for a climate-neutral economy. Financing approaches can be derived from this for the business sector Export and project finance. Although the future development of the business sector Export and project finance continues to entail many uncertainties, from today’s perspective there are sufficient opportunities and potential for the targeted growth path.

With a sectoral realignment based on transformation areas, the business sector is continuing its charted growth course as in the previous year and is pursuing a significant increase in the volume of new commitments to a total of EUR 24.1 billion for 2024. Of this amount, roughly EUR 22.4 billion is expected to be attributable to the primary business Export and project finance, and roughly EUR 1.8 billion to the commercial interest reference rate (“CIRR”) business, which cannot be controlled by the business sector.

The business sector **KfW Development Bank** expects commitments to remain at a consistently high level for the next few years. KfW Development Bank will continue to support projects of the German Federal Government and international institutions for development policy and international cooperation. Issues such as support for partner countries in the green energy transition, alleviating poverty and hunger, combating the effects of the war in Ukraine, achieving equal opportunities and mitigating crises and causes of displacement are high on the political agenda.

In order to fulfil its ambitious development policy promotional objectives, the Federal Government must continue to provide an adequate guarantee framework for Financial Cooperation. The federal budget funds provided for development

cooperation will decrease in 2024. The future priorities of the German Federal Ministry for Economic Cooperation and Development (“BMZ”), as KfW Development Bank’s most important contracting authority, are derived from long-term core areas based on the UN’s Sustainable Development Goals (“SDGs”) as well as initiative areas that inspire action in the medium term. There is potential for KfW Development Bank to play a part in international energy/climate/infrastructure partnerships. In view of the expected – in some cases dramatic – effects of climate change in the partner countries, strong demand for long-term financing to support relevant transformation processes and improve climate resilience can generally be assumed. KfW Development Bank also considers the greater importance placed on mobilising public and private funds for global infrastructure initiatives (EU Global Gateways, G7 Partnership for Global Infrastructure and Investment) at both EU and G7 level as an opportunity.

Against the backdrop of planned projects of the German Federal Government and international institutions, KfW Development Bank currently expects a new business volume of EUR 11.2 billion for 2024.

The subsidiary **DEG** is assigned to the DEG business sector of the same name. Economic development in developing countries and emerging economies in 2024 will continue to be determined by the war in Ukraine, the conflict in the Middle East, high inflation and the effects of the tightened monetary policy in this context, as well as the sovereign debt problem. The aim continues to be to provide support to existing customers as a reliable partner in times of crisis to secure contributions to local development (labour force, local income, and contributions to local communities). To this end, the business sector provides its customers with long-term financing in the form of loans (also in local currency), mezzanine financing and equity investments for their environmentally and socially responsible investments. DEG provides complementary advice to its customers, particularly on issues relating to sustainability, climate, development impact and corporate governance, in order to support them in their transformation and boost their contribution to local development. With its private sector focus, DEG has a special role to play in mobilising private capital. Private capital mobilisation is essential for achieving the SDGs and climate targets of the Paris Agreement.

DEG already started growing its new business originally planned for 2025 in 2023. It is maintaining its moderate growth in new commitments and is planning a new commitment volume of EUR 2.0 billion for 2024. This growth will be achieved by granting larger financing commitments per customer with a suitable risk/return/impact profile and by using hedging instruments. New business in all three customer clusters: Banking, infrastructure and energy, Industries and services, and Private equity and venture capital is already focused more heavily on climate and development impacts. By focussing on the acquisition of new business, the aim is to further increase financing performance in terms of both impact and earnings. Three strategically important cross-sectoral focal areas, Africa, German business, and mobilisation, are also being systematically pursued.

DEG is also undergoing a transformation itself, driven by megatrends such as global warming and digitalisation. These changes not only shape the external landscape but also influence DEG itself. The business sector sees the challenges posed by the need to adapt as an opportunity to restructure and improve its delivery and performance capabilities. The strategic focus is shifting to the climate, while digitalisation is opening up new opportunities for innovative working and business models that promise considerable efficiency and market potential.

Funding projections

KfW issues bonds to **fund** its promotional activities worldwide. It issues these in a large number of currencies and with differing maturities, thereby addressing a variety of target groups. Due to the explicit direct guarantee of the Federal Government, rating agencies have assigned KfW bonds a triple A rating, signifying top credit quality. KfW has achieved a stable position in the capital markets with its diversified long-term oriented funding strategy. The funding volume via the capital markets was around EUR 90.2 billion in 2023 – an all-time high. This was driven in particular by the favourable business performance at KfW IPEX-Bank and the exceptionally high demand for promotional loans. A funding need of EUR 90–95 billion is projected for 2024. The product offering in the bond issuance business will continue to be focused on investors’ needs. KfW’s benchmark bonds in euros and US dollars will continue to constitute the largest share of total volume. Further diversification of the product range depends on the market.

Earnings projections

In the group **earnings projections** for 2024, KfW expects Consolidated profit of approximately EUR 1,030 million. This puts projected earnings at the strategic target level of EUR 1 billion.

Net interest income (before promotional expense) of EUR 2.7 billion is expected for 2024. Compared to the previous year's projections, significantly higher income from return on equity is expected as a result of the sharp rise in interest rates. Opportunities and risks for Consolidated profit may arise, primarily with respect to the structural contribution, from market conditions deviating from projections in conjunction with KfW's positioning.

KfW projects Net commission income totalling EUR 0.7 billion. This includes remuneration for the implementation of promotional programmes in Germany on behalf of the Federal Government as well as remuneration based on KfW Development Bank's General Agreement.

Administrative expense is likely to be approximately EUR 1.6 billion in 2024. This includes the implementation of business policy bank backlog projects in the areas of modernisation, digitalisation, regulation, inflation-induced adjustments, and adjustments associated with the 38-hour week.

Overall, the operating result before valuation is expected to be higher than projections made in the previous year.

At EUR 0.5 billion, KfW expects the standard risk costs for 2024 to be at the level of the risk provisions projected for 2023.

For 2024, Net income of EUR 0.2 billion and Net other operating income of EUR 0.1 billion are expected for operational level equity investments (included in Net gains/losses from other financial instruments at fair value and the Net gains/losses from investments accounted for using the equity method).

In this regard, the risk provisions for the lending business and the valuation result depend on the further development of the macroeconomic impact of the current geopolitical situation. The continued uncertain situation may lead to significant positive or negative deviations in the projected result, especially in earnings projections for international and equity investment business.

KfW expects promotional expense of EUR 0.4 billion in 2024.

Overall conclusion

In light of the economic environment and expected demand, KfW projects new business volume of EUR 89.2 billion and Consolidated profit of EUR 1.0 billion for 2024.

The further development of the economic and geopolitical situation, the uncertainty due to the war in Ukraine and the conflict in the Middle East as well as increased inflation could have an impact on German and global economic performance, which in turn may affect the achievement of KfW's objectives set for financial year 2024. KfW will continue to closely monitor the development of the crises and the consequences for KfW's business.

Notes to the KfW annual financial statements prepared in accordance with the German Commercial Code

Overall activities of KfW

Financial statements	2023	2022
	EUR in millions	EUR in millions
Volume of business	722,920	718,361
Total assets	595,291	596,985
Bonds and notes issued	471,779	455,107
Own funds ¹⁾	31,977	30,841
Net interest income (before promotional expense)	2,151	1,923
Net commission income (before promotional expense)	425	475
Administrative expense (before promotional expense)	1,243	1,209
Promotional expense	375	305
Profit for the year	1,336	1,026

¹⁾ 2022 figures including Section 340g HGB

Development of KfW

KfW's earnings in financial year 2023 increased year on year. Net interest income before promotional expense was above that of the previous year. Net commission income before promotional expense was lower than in the previous year. The cost/income ratio before promotional expense decreased to 48.3% (2022: 50.4%) due to the rise in net interest income. KfW strengthened its capital base due to its earnings position, with a profit for the year of EUR 1,336 million.

KfW's total assets declined by EUR 1.7 billion to EUR 595.3 billion, with business volume increasing from EUR 718.4 billion to EUR 722.9 billion.

KfW's promotional business volume amounted to EUR 93.3 billion, lower than the group's promotional business volume of EUR 111.3 billion. The difference relates to the international business and results from DEG and Export and project finance of KfW IPEX-Bank GmbH.

Development of earnings position

KfW's operating result before valuation and promotional expense was EUR 1,457 million, which was higher (by EUR 214 million) than the previous year's figure of EUR 1,243 million.

**Reconciliation of internal earnings position before promotional expense
to external earnings position after promotional expense for financial year 2023**

Earnings position	EUR in millions	Reconciliation EUR in millions	EUR in millions	German Commercial Code income statement form
Net interest income (before promotional expense)	2,151	-282	1,868	Total of interest income and current income less interest expense
Net commission income (before promotional expense)	425	-13	412	Commission income less Commission expense
Administrative expense (before promotional expense)	1,243	14	1,257	Total general administrative expense and depreciation, amortisation and impairments on property, plant and equipment and intangible assets
Other operating income and expenses (before promotional expense)	124	-66	58	Other operating income less Other operating expense
Operating result (before risk provisions/valuation/ promotional expense)	1,457	-375	1,082	Subtotal of Interest income, Current income, Commission income, Net other operating income less Interest expense, Commission expense, General administrative expense, Depreciation, amortisation and impairments on property, plant and equipment and intangible assets, Other operating expense
Valuation result	13	-1	12	Income from reversals of write-downs of equity investments, shares in affiliated companies and securities held as fixed assets
Risk provisions for lending business	36	1	37	Income from the reversal of impairment losses on receivables and certain securities and the reversal of provisions for loan losses
Net result from transfer agreements	6	0	6	Income from profit pooling, profit and loss transfer and partial profit transfer agreements
Reversal of the fund for general banking risks	200	0	200	Reversal of the fund for general banking risks
Profit/loss from operating activities (before promotional expense)	1,712	-375	1,337	Profit/loss from operating activities
Promotional expense	375	-375	0	-
Taxes on income	0	0	0	Taxes on income
Other taxes	1	0	1	Other taxes
Profit for the year	1,336	0	1,336	Profit for the year

Reconciliation of internal earnings position before promotional expense to external earnings position after promotional expense for financial year 2022

Earnings position	EUR in millions	Reconciliation EUR in millions	EUR in millions	German Commercial Code income statement form
Net interest income (before promotional expense)	1,923	-267	1,656	Total of interest income and current income less interest expense
Net commission income (before promotional expense)	475	-12	463	Commission income less Commission expense
Administrative expense (before promotional expense)	1,209	16	1,225	Total general administrative expense and depreciation, amortisation and impairments on property, plant and equipment and intangible assets
Other operating income and expenses (before promotional expense)	55	-10	45	Other operating income less Other operating expense
Operating result (before risk provisions/valuation/ promotional expense)	1,243	-305	938	Subtotal of Interest income, Current income, Commission income, Net other operating income less Interest expense, Commission expense, General administrative expense, Depreciation, amortisation and impairments on property, plant and equipment and intangible assets, Other operating expense
Valuation result	-2	1	2	Impairments of and valuation allowances on equity investments, shares in affiliated companies and securities held as fixed assets
Risk provisions for lending business	96	-1	95	Income from the reversal of impairment losses on receivables and certain securities and the reversal of provisions for loan losses
Net result from transfer agreements	-1	0	1	Cost of loss absorption
Profit/loss from operating activities (before promotional expense)	1,336	-305	1,031	Profit/loss from operating activities
Promotional expense	305	-305	0	-
Taxes on income	3	0	3	Taxes on income
Other taxes	3	0	3	Other taxes
Profit for the year	1,026	0	1,026	Profit for the year

At EUR 2,151 million, **Net interest income (before promotional expense)** was up on the previous year (EUR 1,923 million) by EUR 228 million. The increase is primarily due to the rise in interest rates and the resulting significant increase in income from investment of own funds. Moreover, interest income in the lending and money market business increased, which was only partially offset by a rise in interest expense.

Net commission income (before promotional expense) of EUR 425 million was EUR 50 million below the previous year's level of EUR 475 million. This was due to the decline in commission income in the programmes for charging stations for electric cars by EUR 37 million to EUR 16 million (2022: EUR 52 million) the Energy-efficient Construction and Refurbishment programme and its successor, the Federal Funding for Efficient Buildings programme, to EUR 110 million (2022: EUR 136 million); and the KfW special coronavirus programme by EUR 9 million to EUR 33 million (2022: EUR 42 million). Commission income generated by the administration of German Financial Cooperation ("FC") in the business sector KfW Development Bank increased to EUR 245 million (2022: EUR 231 million). The remuneration from the Federal Government was offset by related administrative expenses.

Administrative expense (before promotional expense) increased by EUR 33 million from EUR 1,209 million to EUR 1,243 million. The increase is mainly due to external service provision.

The result from **Other operating income and expense (before promotional expense)** amounts to EUR 124 million and is mainly due to the fee of EUR 99 million (2022: EUR 91 million) paid under the agency agreement with KfW IPEX-Bank GmbH.

The positive **valuation result** of EUR 13 million (2022: EUR 2 million expense) is the result of income of EUR 7 million (2022: EUR 0 million) from the valuation and sale of equity investments, and income of EUR 6 million (2022: EUR 2 million expense) from securities.

Risk provisions for lending business generated net income of EUR 36 million (2022: EUR 96 million net income). The net additions to specific valuation allowances were more than offset by the net reversal of general valuation allowances and the income from the successful recovery of loans previously written off. The net additions to specific valuation allowances are mainly attributable to the business sectors Mittelstandsbank & Privatkunden (*SME Bank & Private Clients*) and Export and project finance. There was an increase in specific valuation allowances and specific provisions for the lending business from EUR 765 million to EUR 858 million. This also includes specific valuation allowances for interest receivables at risk of default amounting to EUR 359 million. There was a decline in the general valuation allowances and general provisions for the lending business from EUR 511 million to EUR 333 million. Non-performing loans in the amount of EUR 80 million in connection with specific valuation allowances were written off in financial year 2023 (2022: EUR 61 million).

KfW's domestic **promotional expense**, which has a negative impact on its earnings position, was, at EUR 375 million in 2023, above the prior-year level (2022: EUR 305 million). The key component of KfW's promotional expense is interest rate reductions of EUR 282 million granted during the first fixed interest rate period in addition to passing on its favourable funding conditions. Moreover, promotional expenses reported in net commission income and administrative expense amounted to EUR 27 million (2022: EUR 28 million). Among other things, this spending was aimed at the sale of KfW's promotional products. Until the end of 2022, KfW awarded promotional grants in addition to its lending business, which were included in Other operating expense. Since 2023, KfW has begun to award promotional grants under its ERP promotion amounting to EUR 66 million, which are reported under Other operating expense.

The **net result from transfer agreements** includes KfW Capital GmbH's profit transfer in the amount of EUR 6 million.

Financial year 2023 closed with a **profit for the period** of EUR 1,336 million (2022: EUR 1,026 million), which was fully allocated to retained earnings in accordance with Article 10 (3) KfW Law.

Development of net assets

In financial year 2023, KfW recorded a decrease in total assets of EUR 1.7 billion and an increase in business volume of EUR 4.6 billion.

Volume of receivables

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Loans and advances to banks	400,867	389,076
Loans and advances to customers	120,400	135,414
Loans held in trust	10,886	10,271
Contingent liabilities from financial guarantees	615	704
Irrevocable loan commitments	127,014	120,671
Total	659,782	656,137

The volume of receivables (loans and advances to banks and customers, including irrevocable loan commitments, loans held in trust and guarantees) increased from EUR 656.1 billion to EUR 659.8 billion. The change in loans and advances to customers from the previous year was mainly due to the decline in loans in connection with the energy supply to EUR 8.8 billion (2022: EUR 22.4 billion).

The volume of loans held in trust, which primarily comprise loans to promote developing countries financed by budget funds provided by the Federal Republic of Germany, rose from EUR 10.3 billion in 2022 to EUR 10.9 billion in 2023.

Contingent liabilities from financial guarantees declined to EUR 0.6 billion, while irrevocable loan commitments rose by EUR 6.3 billion from EUR 120.7 billion in 2022 to EUR 127.0 billion in 2023 due to new commitments, partly as a result of further new commitments in the energy industry.

Total bonds and other fixed-income securities rose by EUR 1.1 billion to EUR 41.6 billion (2022: EUR 40.4 billion). Holdings of repurchased own issues amounted to EUR 3.8 billion (2022: EUR 3.9 billion). This was equivalent to 0.9% of bonds issued.

At a total amount of EUR 37.7 billion, holdings of securities of other issuers, which make up 90.8% of the total holdings of all bonds and other fixed-income securities, exceeded the previous year's level of EUR 36.6 billion, by EUR 1.1 billion. Of the securities from other issuers, 77.6% is eligible as collateral for funding operations with the European Central Bank ("ECB").

In addition to the Treasury securities portfolios, KfW holds asset backed securities ("ABS") with a carrying amount of EUR 6.2 billion, (previous year: EUR 6.0 billion), related to its securitisation and SME finance activities. Potential risks are sufficiently addressed by appropriate risk provisioning.

The value of shares in affiliated companies amounted to EUR 4.2 billion (2022: EUR 4.0 billion). KfW's assets held in trust rose by EUR 1.9 billion to EUR 20.5 billion (2022: EUR 18.6 billion).

Development of financial position

KfW raised EUR 90.2 billion in the capital markets to fund its business activities in 2023 (2022: EUR 89.4 billion). A total of 186 bonds were issued in 10 currencies. The 22 Green Bond transactions (including 7 top-ups) with a volume of EUR 12.9 billion made a 14.3% contribution to funding.

Borrowings decreased by EUR 6.1 billion to EUR 534.0 billion.

Borrowings

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Federal Republic of Germany		
– ERP Special Fund	315	283
– Federal budget	7,944	7,887
– Economic Stabilisation Fund (WSF)	35,964	52,807
	44,223	60,976
Other lenders	5,035	4,537
Liabilities to customers	49,258	65,514
Liabilities to banks	12,948	19,463
Long-term debt securities	431,613	414,507
Commercial papers	37,674	39,007
Accrued interest and interest payable	2,492	1,593
Bonds and notes issued	471,779	455,107
Total	533,985	540,083

Bonds issued increased by EUR 16.7 billion year on year and totalled EUR 471.8 billion as of 31 December 2023. New issuances and maturities as well as fluctuations in foreign exchange rates, particularly of the US dollar, had an impact on portfolio development.

Bonds issued accounted for 88.4% of borrowed funds, which was higher than the previous year's level (84.3%). Proportionally, they therefore remain KfW's largest source of funding. The share of bonds denominated in pounds sterling was 54% in 2023 (2022: 65%); those denominated in US dollars amounted to 29% (2022: 19%). The share of bonds denominated in pounds sterling remained unchanged from the previous year at 9%.

As of 31 December 2023, KfW's funds raised via the Economic Stabilisation Fund ("WSF") by means of promissory note loans decreased by EUR 16.8 billion, to EUR 36.0 billion. WSF funding of EUR 22.9 billion was used to fund the special coronavirus programme and EUR 13.1 billion to finance programmes to ensure the liquidity of energy sector companies and the necessary infrastructure.

The share of funds from banks and customers (excluding federal budget funds) decreased slightly year on year to 3.4% (2022: 4.4%). This includes cash collateral received primarily to reduce counterparty risk from the derivatives business in the amount of EUR 2.4 billion (2022: EUR 11.6 billion).

KfW's **own funds** amounted to EUR 32 billion as of 31 December 2023, up 3.7% compared to the previous year. This increase was exclusively due to the net profit of EUR 1,336 million allocated to retained earnings. The fund for general banking risks was completely reversed (2022: EUR 0.2 billion).

Own funds

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Subscribed capital	3,750	3,750
Uncalled contributions outstanding	-450	-450
Capital reserve	8,447	8,447
Reserve from the ERP Special Fund	1,191	1,191
Retained earnings		
a) Statutory reserve under Article 10 (2) KfW Law	1,875	1,875
b) Special reserve under Article 10 (3) KfW Law	17,117	15,781
c) Special reserve under Section 17 (4) D-Mark Balance Sheet Act ¹⁾	48	48
Fund for general banking risks under Section 340g HGB	0	200
Total	31,977	30,841

¹⁾ To be adjusted by the special loss account presented on the assets side in accordance with Section 17 (4) of the D-Mark Balance Sheet Act (EUR 26 million).

Declaration of compliance

The Executive Board and Board of Supervisory Directors of KfW have resolved to recognise the principles of the Federal Public Corporate Governance Code (*Public Corporate Governance Kodex des Bundes* – “PCGK”) and apply them at KfW. The Corporate Governance Report of KfW contains the declaration of compliance with the recommendations of the PCGK.

Non-financial statements

Information on the “Combined non-financial statements of KfW as the parent company and of KfW Group” can be found in the separate Global Reporting Initiative (GRI) standard report of the 2023 Sustainability report. This can be accessed online at:

www.kfw.de/Sustainability

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Consolidated statement of comprehensive income

Consolidated income statement

	Notes	2023 EUR in millions	2022 EUR in millions
Interest income from the effective interest method		17,300	3,065
Other interest income		1,099	721
Interest income, total	(22)	18,399	3,786
Interest expense	(22)	15,943	1,638
Net interest income¹⁾		2,456	2,148
Net gains/losses from risk provisions	(7), (23)	169	-124
Net interest income after risk provisions		2,625	2,024
Commission income	(11), (24)	622	649
Commission expense	(24)	29	32
Net commission income		593	617
Net gains/losses from hedge accounting	(8), (25), (57), (58)	291	150
Net gains/losses from other financial instruments at fair value through profit or loss	(26)	-177	64
Net gains/losses from disposal of financial assets at amortised cost	(27)	0	-1
Net gains/losses from investments accounted for using the equity method	(6), (28)	29	43
Administrative expense	(29)	1,561	1,525
Net other operating income or loss	(30)	-76	-8
Profit/loss from operating activities		1,724	1,365
Taxes on income	(19), (31)	165	-1
Consolidated profit		1,559	1,365

¹⁾ Refer to Note 22 for a gross presentation of Interest income and Interest expense related to reporting of negative interest income and positive interest expense.

Consolidated statement of comprehensive income

	2023 EUR in millions	2022 EUR in millions
Consolidated profit	1,559	1,365
Other comprehensive income	-65	1,007
Change in own credit risk of liabilities designated at fair value through profit or loss	49	137
Defined benefit pension obligations (before taxes)	-121	922
Deferred taxes on defined benefit pension obligations	7	-53
Consolidated comprehensive income	1,494	2,372

Other comprehensive income comprises amounts recognised directly in equity under Revaluation reserves. These amounts include income and expense from the change in own credit risk of liabilities designated at fair value through profit or loss, changes in actuarial gains and losses for defined benefit pension obligations, and changes in deferred taxes reported depending on the underlying transaction.

Consolidated statement of financial position

Assets

	Notes	31 Dec. 2023 EUR in millions	31 Dec. 2022 EUR in millions
Cash reserves	(34)	47,431	51,848
Financial assets at amortised cost	(7), (12), (35), (36), (37), (57), (58)	503,175	500,265
Financial assets at fair value	(7), (38), (59)	16,799	16,624
Value adjustments from macro fair value hedge accounting	(8), (39), (59)	-14,771	-25,859
Derivatives designated for hedge accounting	(8), (40), (57), (58), (59)	5,443	9,005
Investments accounted for using the equity method	(41), (6)	626	642
Non-current assets held for sale	(13), (42)	78	64
Property, plant and equipment	(15), (43)	929	929
Intangible assets	(17), (44)	82	100
Income tax assets	(19), (45)	176	239
Other assets	(11), (46)	772	771
Total		560,741	554,628

Liabilities and equity

	Notes	31 Dec. 2023 EUR in millions	31 Dec. 2022 EUR in millions
Financial liabilities at amortised cost	(7), (47), (57), (58)	499,700	492,579
Financial liabilities at fair value	(7), (48), (59), (60)	10,365	11,401
Value adjustments from macro fair value hedge accounting	(8), (49), (59)	-1	18
Derivatives designated for hedge accounting	(8), (50), (57), (58), (59)	9,300	10,819
Provisions	(7), (18), (51)	2,811	2,672
Income tax liabilities	(19), (52)	107	61
Other liabilities	(11), (53)	386	501
Equity	(20), (54)	38,073	36,579
Paid-in subscribed capital		3,300	3,300
Capital reserve		8,447	8,447
Reserve from the ERP Special Fund		1,191	1,191
Retained earnings		25,150	23,391
Fund for general banking risks		0	200
Revaluation reserves	(7), (20), (54)	-15	50
Total		560,741	554,628

Consolidated statement of changes in equity

Consolidated statement of changes in equity

	Subscribed capital	Capital reserve	Reserve from the ERP Special Fund	Retained earnings	Fund for general banking risks	Revaluation reserves	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2022	3,300	8,447	1,191	22,026	200	-957	34,207
Consolidated comprehensive income	0	0	0	1,365	0	1,007	2,372
<i>Consolidated profit</i>	0	0	0	1,365	0	0	1,365
<i>Other comprehensive income</i>	0	0	0	0	0	1,007	1,007
Reclassifications within Equity	0	0	0	0	0	0	0
As of 31 Dec. 2022	3,300	8,447	1,191	23,391	200	50	36,579
Consolidated comprehensive income	0	0	0	1,559	0	-65	1,494
<i>Consolidated profit</i>	0	0	0	1,559	0	0	1,559
<i>Other comprehensive income</i>	0	0	0	0	0	-65	-65
Reclassifications within Equity	0	0	0	200	-200	0	0
As of 31 Dec. 2023	3,300	8,447	1,191	25,150	0	-15	38,073

The difference to the consolidated comprehensive income is allocated to Other retained earnings or – if recognised directly in equity – to revaluation reserves.

Note 54 provides details on the consolidated statement of changes in equity.

Consolidated statement of cash flows

	2023	2022
	EUR in millions	EUR in millions
Consolidated profit	1,559	1,365
Non-cash items included in consolidated profit and reconciliation to cash flow from operating activities:		
Depreciation, amortisation, impairment and reversal of impairment losses (assets) and changes in risk provisions for lending business	50	399
Changes in provisions for pensions and similar commitments and Other provisions	235	161
Other non-cash expenses and income	47	-47
Profit/loss from the disposal of assets	0	0
Other adjustments	-2,339	-2,102
Subtotal	-446	-224
Changes in assets and liabilities from operating activities after adjustment for non-cash items:		
Financial assets at amortised cost	-2,893	-27,304
Financial assets at fair value	-326	-431
Other assets relating to operating activities	-7,302	33,277
Financial liabilities at amortised cost	7,121	-3,806
Financial liabilities at fair value	-18	-1,818
Other liabilities relating to operating activities	-2,825	7,697
Interest and dividends received	18,399	3,786
Interest paid	-15,943	-1,638
Income tax paid	-117	-46
Cash flow from operating activities	-4,350	9,492
Property, plant and equipment/Intangible assets:		
Cash proceeds from disposals	2	10
Cash payments for acquisitions	-77	-41
Securities and investments (equity investments):		
Cash proceeds from disposals/Cash payments for acquisitions	7	-53
Cash flow from investing activities	-68	-83
Cash proceeds from/Cash payments for capital increases/decreases	0	0
Changes from other financing activities	0	0
Cash flow from financing activities	0	0
Cash and cash equivalents as of the end of the previous period	51,848	42,439
Cash flow from operating activities	-4,350	9,492
Cash flow from investing activities	-68	-83
Cash flow from financing activities	0	0
Cash and cash equivalents as of the end of the period	47,431	51,848

The balance of Cash and cash equivalents reported in the statement of cash flows in accordance with IAS 7 is identical to the statement of financial position item Cash reserves and thus comprises cash on hand and balances with central banks.

The statement of cash flows shows the changes in Cash and cash equivalents in the financial year classified as the Cash flows from operating activities, investing activities and financing activities. The item Other adjustments largely comprises the adjustment for net interest income in the amount of EUR –2,456 million (2022: EUR –2,148 million). The cash payments for the repayment portion of lease liabilities included in Cash flow from operating activities amounted to EUR 13 million in financial year 2023 (2022: EUR 13 million). The cash payments for the interest portion of lease liabilities are reported under Interest paid.

For more information on the group's liquidity risk management, see the section on liquidity risk in the combined management report.

Notes

Accounting policies

(1) Basis of presentation of KfW Group

As the group parent company, KfW is the promotional bank of the Federal Republic of Germany and was founded in 1948 as a public law institution based in Frankfurt am Main (Palmengartenstrasse 5–9, 60325 Frankfurt am Main, Germany). KfW promotes sustainable improvement of economic, environmental and social conditions around the world, but with an emphasis on the German economy.

The Executive Board of KfW is responsible for preparing the consolidated financial statements and the combined management report. The Executive Board will approve the publication of the consolidated financial statements on 6 March 2024.

As of the reporting date, KfW Group comprises KfW and six fully consolidated subsidiaries. One joint venture and three associated companies are accounted for using the equity method.

Pursuant to Section 315e (1) of the German Commercial Code (*Handelsgesetzbuch – “HGB”*), the consolidated financial statements as of 31 December 2023 have been prepared in accordance with the International Financial Reporting Standards (“IFRS”), as adopted by the European Union (“EU”), and with the interpretations set out by the IFRS Interpretations Committee (“IFRS IC”), as mandatory consolidated accounts in accordance with Article 4 of Regulation (EC) No. 1606/2002 (“IAS Regulation”) of the European Parliament and of the Council of 19 July 2002, as well as further regulations on the adoption of certain international accounting standards. The standards and interpretations that apply are those that have been published and endorsed by the European Union as of the reporting date.

The supplementary provisions of the German Commercial Code that also apply to IFRS consolidated financial statements have been taken into account. The combined management report prepared in accordance with Section 315 of the German Commercial Code includes the risk report with risk-oriented information on financial instruments as set out in IFRS 7, as well as information on capital and capital management as set out in IAS 1.134.

The consolidated financial statements were prepared in accordance with accounting policies that are consistent across KfW Group and are prepared on a going concern basis. The companies included in the consolidated financial statements have prepared their annual financial statements as of 31 December 2023, except for some associated companies accounted for using the equity method, where financial statements as of 30 September 2023 were used. Material events for the latter companies as of the reporting date were also taken into account.

The accounting policies in the consolidated financial statements were applied consistently with the exception of the items listed in Note 3.

The reporting currency is the euro. Unless otherwise specified, all amounts are stated in millions of euros (EUR in millions).

(2) Accounting standards that are new, amended or to be adopted for the first time

A. Impact of new or amended IFRS/IFRIC interpretations adopted for the first time in financial year 2023

The February 2021 amendments to IAS 1 “Presentation of Financial Statements” and IFRS Practice Statement 2 specify the extent to which accounting policy information must be disclosed in IFRS financial statements (notes). This shifts

the focus to company-specific information instead of standardised information and primarily affects the disclosure requirements set out in IAS 1.117. Entities are required to disclose material accounting policy information rather than their significant accounting policies; immaterial transactions, other events or conditions need not be disclosed. In applying the “materiality” concept, in addition to the absolute amount involved, the type of transaction, other events and conditions must be considered. The amendments also explain when an accounting policy is to be considered material.

The changes to IAS 8 “Accounting Policies, Changes in Accounting Estimates and Errors” focus solely on accounting estimates and are intended to provide guidance on how to distinguish between accounting policies and accounting estimates. The amendment includes a definition of accounting estimate for the first time. Moreover, it clarifies that accounting estimates based on changes and new developments or circumstances do not constitute errors requiring rectification.

The amendment to IAS 12 “Income Taxes” (Deferred Tax related to Assets and Liabilities arising from a Single Transaction) limits the scope of the initial recognition exemption, according to which deferred tax assets and liabilities are not to be recognised at the time the asset or liability is acquired. Deferred taxes are to be recognised for transactions that give rise to taxable and deductible temporary differences in the same amount. The amendment is particularly relevant for IFRS 16 applications.

With the international model rules for the reform of international corporate taxation, the OECD published the framework for international minimum taxation (Global Anti-Base Erosion [GloBE] Model Rules [Pillar Two]). The amendments to IAS 12 published in May 2023 give companies temporary relief from recognising or disclosing deferred taxes arising under the OECD’s Pillar Two income taxes. Additional disclosure requirements are provided with regard to the actual tax expense in connection with Pillar Two. In periods in which legislation implementing the Pillar Two rules has been essentially adopted but not yet enacted, known or reliably estimable information that allows the effect of the Pillar Two rules or the resulting income taxes on the company to be estimated must be disclosed.

IFRS 17 “Insurance Contracts” was issued in May 2017 and supersedes IFRS 4 “Insurance Contracts”. It sets out principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the standard. The IASB adopted amendments and clarifications to IFRS 17 at the end of June 2020, thereby delaying the date of mandatory first-time application of IFRS 17 by two years, to 1 January 2023.

The amendments to IFRS 17 of December 2021 relate to financial assets of entities that are applying IFRS 17 and IFRS 9 in their accounting for the first time and presenting comparative information that has not been restated for IFRS 9. Entities have the option of presenting comparative information about a financial asset as if IFRS 9 classification and measurement requirements had been applied to that financial asset before. The option may be applied to each individual instrument.

The accounting standards that are new, amended or to be adopted for the first time have no significant impact on the net assets, financial and earnings position of KfW Group. The future effects of the Pillar Two rules on the net assets, financial and earnings position are currently being assessed.

B. Impact of new or amended IFRS/IFRIC interpretations to be adopted in the future that were endorsed by the EU into European law before the reporting date

Standard concerned	Mandatory application for financial years from	Description
IAS 1	1 Jan. 2024	The January 2020 amendments serve to clarify the criteria for classifying liabilities as current or non-current. In the future, the classification of liabilities as current or non-current will be based on the rights held by the entity on the reporting date. A liability is classified as non-current if, at the end of the reporting period, the entity has a substantial right to defer settlement of the liability for at least twelve months after the reporting date. Further guidance on the interpretation of specific criteria and explanatory notes have also been included. The amendment to IAS 1 published in October 2022 clarifies when debt is to be classified as current or non-current, taking into account agreed covenants. It stipulates that only covenants that must be complied with on or before the reporting date affect the classification as current or non-current liabilities. For liabilities classified as non-current with covenants which are due within twelve months after the reporting date, additional disclosures must be made in the notes to enable users of the financial statements to assess the risk of a possible early repayment of the liability.
IFRS 16	1 Jan. 2024	The amendment to IFRS 16 introduces rules on subsequent measurement for seller-lessees in the case of leases in a sale and leaseback transaction. It stipulates that in the subsequent measurement, the lease liability is to be measured in a way that does not recognise any gain or loss that relates to the right of use it retains.

KfW Group does not utilise the permitted early application options of the standard amendments. The future amendments to the standards described above are not expected to have any significant impact on the group's net assets, financial and earnings position.

C. New or amended IFRS/IFRIC interpretations to be applied in the future that were published by the EU before the reporting date but have not yet been endorsed into European law

Standard concerned	Effective for financial years from	Description
IAS 7 / IFRS 7	1 Jan. 2024	The amendments to IAS 7 and IFRS 7 published in May 2023 are intended to enhance the transparency of supplier finance arrangements. Qualitative and quantitative information on arrangements with suppliers should be made available in order to understand their effects on the financial liabilities, cash flows and liquidity risk of the reporting entity.
IAS 21	1 Jan. 2025	The amendments to IAS 21 published in August 2023 require an entity to apply a consistent approach when assessing whether a currency is exchangeable into another currency. This determines how an entity determines the exchange rate to be applied when a currency is not exchangeable. Additional information must be disclosed in cases of non-exchangeability.

KfW does not intend to utilise the permitted early application options of the standard amendments. The amendments described above are likely to have only minor effects, if any, on the group's net assets and financial and earnings position.

(3) Changes to material accounting policies

As USD LIBOR rates have no longer been available since 30 June 2023 as a result of the benchmark reform, all derivatives referencing USD LIBOR have been transitioned to SOFR on the basis of the ISDA Fallbacks Protocol. The hedged risk in the USD macro-hedge portfolio was also transitioned to SOFR in this context. This essentially makes the hedging relationship more effective, as the tenor spread is no longer a source of ineffectiveness for this portfolio. However, due to the low volume of the USD macro-hedge portfolio, this did not have any significant effect on the income statement.

The persons in key positions were limited to the KfW Executive Board and the members of the Board of Supervisory Directors. Please refer to the section “Related party disclosures”.

(4) Judgements and accounting estimates

The consolidated financial statements include amounts based on management’s judgements and/or estimates and assumptions which are determined to the best of our ability and in accordance with the applicable accounting standard. Actual results realised in a future period may differ from these estimates. Material judgements, estimates and assumptions are required, in particular, for calculating risk provisions (including risk provisions for lending business), recognising and measuring provisions (primarily for pension liabilities and legal risks), measuring the fair value of financial instruments based on valuation models (including determining the existence of an active market), determining remaining terms of leases, assessing and measuring impairment of assets, and assessing the utilisation of deferred tax assets. The estimates and the assumptions underlying these estimates are reviewed on an ongoing basis and are based, among other things, on historical experience or expected future events that appear likely given the particular circumstances. Where judgements as well as estimates and their underlying assumptions were required, the assumptions made are explained in the relevant notes.

KfW Group does not expect any deviations from its assumptions and does not foresee any uncertainties in its estimates that could result in a material adjustment to the related assets and liabilities within the next financial year. Given the strong dependency on the development of the economy and financial markets, however, such deviations and uncertainties cannot be fully ruled out. These risks are nevertheless low because valuation models – especially those involving the use of inputs not based on observable market data – are employed to measure only small parts of receivables, securities, investments and borrowings measured at fair value, on the one hand, and only a small portion of financial derivatives used to economically hedge risk, on the other hand.

The anticipated impact of the war in Ukraine and the conflict in the Middle East were taken into account in calculating risk provisions and fair values for equity investments within the framework of the established accounting policies. The procedure and the minor adjustments are presented as follows:

Risk provisions for performing loans (stages 1 and 2) and, in the retail business, also for non-performing loans (stage 3) are calculated using risk parameters which are geared to regulatory and internal credit risk models for the parameterisation of probability of default (“PD”), loss given default (“LGD”) and exposure at default (“EAD”).

Despite the current crises, expectations regarding the economic environment have improved since the start of the financial year, which led to a less conservative approach to loss ratios compared to the previous year.

In addition, the improved macroeconomic expectations compared to the previous year are reflected in the point in time adjustment of probabilities of default, which resulted in a reversal of risk provisions for performing loans in the

financial year. The persistent uncertainties regarding future economic developments were addressed by considering a further, more conservative scenario, which, in addition to worse outlooks for regions and sectors, is also based on a more conservative approach to default and loss rates.

Environmental, social und governance risks (“ESG risks”) do not present new risks for the group to take into account, as Risk Management already addresses ESG risks in the context of business partner ratings, credit approvals and portfolio analyses as part of the group’s risk strategy. They are therefore already reflected in the risk provisions for lending business and may also be reflected in the valuation of equity investments as part of a qualitative overall risk view.

(5) Group of consolidated companies

All significant subsidiaries, joint ventures and associated companies are included in the consolidated financial statements.

Subsidiaries are all business units (including structured entities) over which the group exercises control. Control exists when a group is exposed or entitled to variable cash flows through its relationship and has the opportunity to use its power of disposal to influence the amount of such cash flows. Subsidiaries are included in the consolidated financial statements (full consolidation) from the point at which control is transferred to the group. They are deconsolidated when control is lost.

Joint ventures and associated companies are included in the consolidated financial statements in accordance with IFRS 11/IAS 28 if a joint agreement is in place or the group has significant influence. Significant influence exists when KfW can participate in financial and business policy decisions regarding the associated company even if it does not have sole or joint control.

The composition of the consolidated group is presented in the Notes under “List of KfW Group shareholdings”.

(6) Basis of consolidation

Consolidation involves revaluing the total assets and liabilities of the subsidiaries at the acquisition date, irrespective of the equity interest held, and incorporating them into the consolidated statement of financial position and accounting for them in subsequent periods in accordance with the applicable standards. If the revaluation adjustments result in an excess compared to acquisition cost, this excess amount is capitalised as goodwill. No goodwill is currently recognised.

Any intercompany assets and liabilities as well as expenses and revenues from transactions between consolidated group companies are eliminated through debt consolidation, or earnings and expenses consolidation, respectively. Intercompany profits between fully consolidated companies are also eliminated.

Investments in associates and joint ventures are accounted for using the equity method. The group’s share of the profits or losses of associates and joint ventures is recognised in the “Net gains/losses from investments accounted for using the equity method” line item in the income statement.

There are no minority interests within KfW Group.

(7) Financial instruments

A. Classification and measurement

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. The rules under IFRS 9 “Financial Instruments” serve as the basis for recognition and measurement of financial instruments.

Classification of financial assets at initial recognition thus determines their subsequent measurement. Classification and subsequent measurement of debt instruments is based on the business model and characteristics of the contractual cash flows (solely payments of principal and interest, or “SPPI” criterion). Equity instruments, on the other hand, must always be measured at fair value.

IFRS 9 distinguishes between four categories of measurement for financial assets:

1. At amortised cost
2. At fair value through profit or loss (“FVTPL”), with the two sub-categories: mandatory and designated
3. At fair value through other comprehensive income (“FVTOCI”) with no recycling into profit or loss (not used in the group)
4. At fair value through other comprehensive income (“FVTOCI”) with recycling into profit or loss (not used in the group)

Instruments are assigned to business models on a portfolio basis. IFRS 9 provides for three business models to manage financial assets:

1. Hold to collect – financial assets are held with the objective of collecting contractual cash flows.
2. Hold to collect and sell – financial assets are held with the objective of both collecting the contractual cash flows and selling the financial assets (not used in the group).
3. Hold to sell – financial assets held with the objective of selling, or which do not fulfil the “hold to collect” or “hold to collect and sell” criteria.

The cash flow criterion is assessed for each individual financial asset as the second step. The cash flows of financial instruments are then checked for consistency with a basic lending arrangement and as to whether they thus constitute SPPIs on the outstanding loan balance. IFRS 9 defines interest as compensation for the time value of money and credit risk assumed, although it can also include a premium for liquidity risk. As is customary for the sector, compensation (e.g. for equity or administrative costs) and a profit margin may also be included.

If payments contain payments beyond SPPIs, they must be measured at fair value. This also applies to non-recourse financing where the cash flows of the financed asset are increased or limited in such a way that they no longer constitute interest or principal payments in economic terms and the bank is consequently not exposed to a credit risk but rather to a project or investment risk.

A financing agreement condition does not affect classification if its effect on the contractual cash flows of the financial asset is only minor (de minimis). The group employs group-wide rules and a standardised classification of contractual covenants in assessing the SPPI criterion. For sustainability-linked loans in which the interest rate varies depending on compliance with defined ESG criteria, a de minimis threshold value is taken as the basis for assessing the SPPI criterion. The threshold value refers to the level of margin variability.

An assessment is made in non-recourse loans as to whether mitigation of the property or project risks creates a sufficient risk buffer and whether this then outweighs the credit risk.

A financial asset must have been allocated to a portfolio with the “hold to collect” business model and meet the cash flow criterion for measurement at amortised cost. The KfW business model is focused on a long-term sustainability approach. As the group does not enter into any transactions with the intention of generating a short-term profit, the Executive Board has decided on the “hold to collect” business model for all credit portfolios (except for the two cases

mentioned below). Moreover, the group's lending business is largely consistent with the definition of a basic lending arrangement, and thus meets the SPPI criterion. The two exceptions to the "hold to collect" business model in the lending business are as follows:

- Holding arrangements for the Federal Republic of Germany: Holdings KfW maintains by mandate for the Federal Republic of Germany are not subject to KfW management. Sales are to be executed upon the Federal Government's instruction. As KfW cannot assume that these positions will remain in the portfolio for the long term, it cannot assume a "hold to collect" intention.
- KfW IPEX-Bank's syndication business: This business focuses on short-term sales and not on the objective of holding and selling the assets in equal measure.

Both cases of exception are assigned to the "hold to sell" business model. The holdings are measured at FVTPL.

Securities portfolios are also assigned to the "hold to collect" business model. This applies to the group's liquidity portfolio as well. As the group places minimum requirements on the ECB-eligibility of securities with regard to its liquidity portfolio, liquidity is secured by means of repo transactions. This therefore means that sales from the liquidity portfolio are unnecessary. The ancillary agreements are recorded and evaluated in the system to check the SPPI criterion. Securitisations are checked on a case-by-case basis to address the special rules for "contractually linked instruments". Consequently, the group's securities portfolios are largely measured at amortised cost using the effective interest method, as is its lending business.

The group's investments from equity finance are accounted for at fair value through profit or loss, as these are either equity instruments or debt instruments with no fixed interest or principal payments. The group does not exercise the option of FVTOCI for equity instruments.

Consequently, the group applies only the first two categories for financial assets: amortised cost and FVTPL.

IFRS 9 only provides for two categories for financial liabilities: amortised cost and FVTPL. Financial liabilities are accounted for at FVTPL if they are classified as held for trading (mandatory fair value) or assigned to this measurement category at initial recognition through application of the fair value option (designated fair value); otherwise they are accounted for at amortised cost. The classification must be irrevocably determined at initial recognition. Reclassification is not permitted.

All non-derivative financial liabilities are held for non-trading purposes in the group. All non-derivative financial liabilities for which the fair value option has not been exercised are classified as liabilities at amortised cost. These are thus measured at amortised cost using the effective interest method. For the group, this category covers funding reported in Financial liabilities at amortised cost (Liabilities to banks, Liabilities to customers and Certificated liabilities). The fair value option is exercised for some structured liabilities such as promissory note loans (*Schuldscheindarlehen*) and certificated liabilities. This concerns liabilities with bifurcated structures as well as liabilities with non-bifurcated structures for which there is an accounting mismatch unless they meet the requirements for application of hedge accounting. In exercising the fair value option, valuation effects resulting from changes in own credit risk are recognised directly in equity in the revaluation reserve.

Derivatives are concluded solely for hedging purposes in the group and measured at FVTPL.

Derivatives are recognised as of the trade date, and all other financial assets as of the settlement date. They are derecognised when the contractual rights from the assets have expired, the power of disposal or control has been transferred, or a substantial portion of the risks and rewards has been transferred to a third party unrelated to

KfW Group. Financial liabilities are derecognised if the obligations specified in the contract have been discharged or cancelled, or have expired.

Financial instruments are initially recognised at fair value. Directly attributable transaction costs are included as incidental acquisition costs.

Financial instruments subsequently measured at amortised cost are measured based on the fair value at initial recognition, taking into account any principal repayments, impairments, and where applicable, contractual amendments. The amortisation of premiums and discounts, transaction costs and fees is performed in accordance with the effective interest method on the basis of the contractual cash flows. Discounts are amortised in the promotional lending business until the end of the first fixed interest rate period (generally five to ten years).

Subsequent measurement at fair value for recognition in the financial statements or for the disclosure of financial instruments in the Notes is presented in "Section D. Fair value" below.

In accordance with Article 2 (4) of the KfW Law, the German Federal Government may mandate transactions to KfW on a case-by-case basis if there is a public interest on the part of the Federal Republic of Germany. Such transactions are referred to as mandated transactions. This means that KfW is mandated by the Federal Government to enter into or acquire certain financial instruments. Both equity and debt instruments can be used for such purposes. Mandated transactions are accounted for by applying the generally accepted IFRS rules on additions and disposals, but also on the receipt of income.

Due to the supplemental agreements with the Federal Government often associated with mandated transactions, the disposal criteria and, in particular, the existence of on-lending agreements must also be checked. In addition, a review of the initial recognition of the relevant financial instruments must be conducted. On-lending agreements ensure that cash flows between KfW and the respective party to the agreement are ultimately passed on to the Federal Government. While the disposal criteria are normally not met with respect to debt instruments, they are generally met when applied to equity instruments, and the financial instrument is thus de-recognised immediately after initial recognition in the statement of financial position. Equity instruments resulting from mandated transactions are therefore not recognised in the financial statements, but are included in disclosures on trust activities in the notes.

B. Impairments

In the group, provisions for loan losses are accounted for in accordance with IFRS 9 requirements and applied to the following financial instruments:

- Loans and receivables as well as third-party securities measured at amortised cost
- Loan commitments not measured at fair value through profit or loss
- Financial guarantees not measured at fair value through profit or loss

Impairments are calculated based on a three-stage model. All assets are assigned to stage 1 at initial recognition and an impairment is calculated that is equivalent to the 12-month expected credit loss ("ECL").

Subsequently, expected credit losses are calculated based on changes in a financial instrument's credit risk since initial recognition. If there has been a significant deterioration of the credit risk (stage 2) or objective evidence of impairment is identified (stage 3), expected credit losses are to be calculated over the remaining lifetime (lifetime ECLs). If, in contrast, there has been no significant increase in credit risk, the financial instrument is still assigned to stage 1 and only the ECLs for the term of the instrument resulting within the next twelve months from potential loss events are taken into account.

A lifetime ECL is recognised for financial instruments in stage 2 as risk provisioning. This is based on risk parameters oriented to regulatory and internal credit risk models for parameterisation of probability of default (“PD”), loss given default (“LGD”) and exposure at default (“EAD”). Interest income for financial instruments in stage 2 is recorded using the effective interest method based on the gross carrying amount.

A lifetime ECL is also recognised for financial instruments in stage 3 as risk provisioning. Assignment to stage 3 and thus classification as impaired is undertaken in line with the group-wide default definition, which reflects the definition of “default of an obligor” in accordance with Article 178 of the Capital Requirements Regulation (“CRR”). The definition distinguishes between the 90 days past due and unlikely to pay criteria. A distinction is made in calculating impairment in stage 3 between significant (non-retail) and non-significant (retail) financial instruments. Impairment for retail business in stage 3 is calculated based on risk parameters and applying a PD of 1. Individual impairment is recognised for incurred losses and is computed on the basis of individual loans for significant portfolios in the lending business. The amount of the impairment loss equals the difference between the carrying amount of the loan and the present value of discounted expected future cash flows from interest, redemption payments and collateral cash flows. Any reversals of individual impairment losses are accounted for through profit or loss. Interest income for these financial instruments is recognised based on the net carrying amount.

In contrast to the lending business, expected losses for defaulted securities are not calculated based on cash flow but instead on market values in stage 3. This is due to the assumption that the market value in the case of impairment is primarily influenced by credit rating factors.

Purchased or originated credit-impaired financial assets (“POCI”) are not significant due to the group’s business model. The group has therefore decided not to separately disclose these special requirements. If there are individual cases that meet the POCI definition, they will be assigned to stage 3 based on the default rating at the time of purchase.

The group takes a nuanced approach to assignment to stages that takes both rating and qualitative information into account.

It uses the change in the probability of default over the remaining term (lifetime PD) compared with the probability of default expected for this period at initial recognition (forward lifetime PD) as a basis to assess whether a transaction can migrate from stage 1 to stage 2. This ensures that only transactions for which there is a significant deviation from the originally expected probability of default are transferred to stage 2. Concessions (contractual modifications) made to the obligor for economic or legal reasons (forbearance), are also considered as a factor in transfer to a subsequent stage.

As there is no individual rating specific to an obligor in the retail business, transfers from stage 1 to stage 2 are based on other credit deterioration indicators, such as negative factors or 30-days-past-due status.

The group does not exercise the option of waiving assessment on whether there has been a significant increase in credit risk, if the instrument is determined to have “low credit risk” at the reporting date (low credit risk exemption).

The IFRS 9 impairment model takes a symmetrical approach to migration, meaning that forward migration to stage 2 or stage 3 as well as reversion back from stages 2 and 3 are possible. Periods of good conduct are defined for the retail business, based on previous past-due status (> 30 days) or default. These range from 90 days to two years, depending on the specifics of the case. This accounts for the fact that no rating-based transfer criterion is applied to the retail business, and therefore, for example, in the absence of a payment default (> 30 days) without a good conduct period, there would be an immediate reversion to stage 1.

Expected credit losses for stage 1 and stage 2 and the retail business in stage 3 are calculated based on individual transactions using statistical risk parameters. The regulatory and internal credit risk models for parametrisation of PD, EAD and LGD that are used in risk management serve as the basis for this calculation. These parameters are adequately adjusted to determine expected credit losses in accordance with IFRS 9. This enables largely uniform credit risk modelling in line with supervisory law, risk management and IFRS requirements even though they may individually differ somewhat in scope. Therefore, essentially best estimate parameters are used to determine the expected credit loss; margins of conservatism are not included. Downturn components are only taken into account in the risk parameters in crisis situations.

Calculation of one-year PD is based on the internal rating system, in which every exposure is assigned a PD score that corresponds to a rating scale of 18 levels for non-defaulted transactions ("PL") and two levels for defaulted transactions ("NPL"). The lifetime PDs are derived from the one-year PD via migration matrices. For IFRS-9-compliant PD modelling, the internal credit risk parameters are adjusted by placing a greater weight on macroeconomic factors from a point-in-time ("PIT") perspective. The adjustment is made through segment and rating-specific modelling of PD premiums and discounts on regulatory PD (through-the-cycle PD). This is based on expert estimates of the economic situation of sectors and countries, with assessment of expected effects, taking into account forward-looking information. This approach differs for the retail business, for which premiums and discounts are calculated applying an expert model based on econometric factors.

LGD is the loss ratio that results in the event of default after taking collateral into account. In accordance with IFRS 9 impairment requirements, a multi-year view without taking internal costs into account is generally required. The regulatory LGD parameters are adjusted accordingly in order that internal costs for IFRS 9 are not included in the calculation of expected credit losses.

The EAD per time bucket corresponds to the loan drawdown expected at the time of default, taking into account additional drawings on open lines of credit. For the off-balance sheet portion, the expected drawdown is calculated based on credit conversion factors ("CCFs").

In times of greater uncertainty, the economic environment is taken into account in addition to the point-in-time adjustment of default probabilities by means of a further macroeconomic scenario.

Risk provisions for on-balance sheet lending and securities business are deducted directly from the statement of financial position item Financial assets at amortised cost. Risk provisions for the off-balance sheet lending business are accounted for on the liabilities side as Provisions (sub-item: Provisions for credit risks).

The credit risks resulting from the on- and off-balance sheet lending business and from financial assets measured at amortised cost are accounted for through impairments recognised in profit or loss in the amount of the one-year expected credit loss (stage 1) or the lifetime expected credit loss (stage 2 and stage 3). Additions to and reversals of risk provisions are recognised in Net gains/losses from risk provisions in the income statement.

An asset is written off in the event that it, or a portion thereof, is estimated as irrecoverable (write-off). In the non-retail business, this is not performed until there is no longer a prospect of recovery, as, for instance, all collateral has been realised or, in the event of insolvency, creditor quotas have been distributed or insolvency proceedings have been discontinued for lack of assets. Write-offs in the retail business are performed pursuant to defined criteria such as insolvency or a fixed default period, which are both related to termination of the loan. Recovery is pursued as long as it is economically viable.

In the case of a write-off, the gross carrying amount is reduced by the amount of the write-off. Current provisions for loan losses are utilised first, and any remaining amount is written off directly. Similar to recoveries on loans already written off, this direct write-off is also reported through profit or loss in the Net gains/losses from risk provisions item.

C. Contractual modifications

Contractual modifications are credit rating or market-induced adjustments to contractual cash flows. In contrast, an adjustment of contractual payments agreed at the time the contract was concluded is not deemed a contractual modification.

Substantial contractual modifications result in derecognition of financial assets even if the same or the modified contract legally remains valid. The modified financial instrument is treated in accordance with IFRS 9 as a new contract and reclassified on the basis of classification criteria. Derecognition resulting from substantial modification is not relevant for the “hold to collect” business model.

There is no write-off for non-substantial contractual modifications. Instead, the gross carrying amount is adjusted to the present value of the modified cash flows calculated using the original effective interest rate. This valuation difference is recognised in profit or loss as a modification gain or loss and amortised through net interest income on subsequent reporting dates.

The modification list serves as the group-wide basis for identification of relevant contractual modifications. This distinction between substantial and non-substantial modification is normally made based on qualitative criteria such as contractual amendments that result in a violation of the cash flow criterion within the meaning of IFRS 9.4.1.1(b).

In the event of a non-substantial modification, an assessment must be made of whether the credit risk has increased significantly and whether a stage transfer may consequently be necessary. This ensures that a credit risk-related contractual modification triggers an ad hoc rating as an early warning signal or at least a documented review of the need for an ad hoc rating in accordance with requirements for early detection of risks. This current rating is taken into account accordingly in the assignment to stages.

D. Fair value

Subsequent measurement at fair value, which, depending on the measurement category, is regularly determined either for recognition in the statement of financial position or for the disclosure of financial instruments in the Notes, is based on the following hierarchy at KfW Group:

Active market – allocation to level 1 (Quoted market price)

The best objective evidence of fair value is provided by published price quotations in an active market. A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available and those prices represent current – i.e., traded on the date of conclusion or shortly before – and regularly occurring market transactions on an arm's length basis. Together with the traded nominal volumes, the contract sizes and the number of contracts, this assessment takes into account in particular the bid-ask spreads observed which in the event of a significant increase indicate the absence of an active market.

No active market – allocation to level 2 (Valuation methods based on observable market data [model]) or level 3 (Valuation methods based in part on data not observable in a market)

If the financial instrument is not quoted in an active market, valuation techniques are used. The valuation techniques applied include, in particular, the discounted cash flow (“DCF”) method and option pricing models, as well as a comparison to the fair value of a financial instrument with almost identical characteristics (e.g. multiple-based models). The valuation techniques take account of all input parameters that the market participants would include in the pricing of that financial instrument, e.g. market interest rates, risk-free interest rates, credit spreads or swap curves. As these input parameters can generally be observed in the market and are usually the only significant parameters for measuring financial instruments using valuation techniques, the level for the financial instruments measured at fair value using valuation methods is usually level 2. This allocation also generally applies for prices quoted on inactive markets published by price service agencies.

If significant input parameters that are not observable on the market, such as expected risk-free customer margins or capital costs, are used in valuation techniques, the financial instrument is allocated to level 3.

If, at the date of initial recognition, differences arise between the market-based transaction price and the model price resulting from a valuation technique that makes significant use of unobservable parameters, an analysis is performed to determine whether there are economic reasons for these initial differences (e.g. conclusion of a transaction on a market that is not the main market for this transaction). These economic reasons only apply to a small part of the derivative portfolio of KfW Group, which comprises a hedging instrument for customers with respect to the export and project financing business. In relation to this, OTC (over the counter) derivatives in line with the market are not concluded on the main market (OTC interbank market) relevant to valuation. The initial differences determined upon conclusion of these derivatives are amortised through profit or loss over the life of the financial instruments, as the valuation parameters unobservable on the market are relevant to the valuation procedure. The reliability of this valuation technique is ensured via regular model validations.

This (valuation) hierarchy is applied in the group as follows:

Fair values are derived from active markets, in particular, for bonds and other fixed-income securities – unless there are inactive markets, and valuation techniques or prices quoted on inactive markets published by price service agencies are therefore used – as well as own issues reported on the liabilities side. Valuation techniques for non-derivative financial instruments are used primarily for products reported under Financial assets at fair value (loans and advances to banks, loans and advances to customers, and equity investments) and Financial liabilities at fair value (liabilities to banks, liabilities to customers, and certificated liabilities). Valuation techniques are also used for OTC derivatives.

The steps detailed below are taken for certain product groups:

For securities in the Securities and investments line item, the group examines whether a financial instrument is quoted on an active market on the basis of homogeneous portfolios. Market activity is assessed based on the following criteria:

- There is more than one market maker.
- Prices are set on a regular basis.
- Prices deviate only slightly between market makers.
- The bid-ask spread is narrow.

Prices on active markets are used to determine the fair value of the group’s asset securities as of the reporting date. In addition, for parts of the portfolio, prices from price service agencies are used that do not qualify as prices quoted on active markets. Should these not be available in individual cases, valuation techniques are used to determine

fair value taking into account observable market parameters. The input parameters include, in particular, changes in creditworthiness and risk-free interest rates, but they also take into account general and financial instrument-specific tightening of the market due to lower liquidity.

In measuring OTC derivatives, valuation adjustments are determined for counterparty risks (credit valuation adjustments – “CVA”), own default risk (debt valuation adjustments – “DVA”), collateral costs under credit support annexes (“CSA”) (collateral valuation adjustments – “ColVa”) and funding cost adjustments (“FCA”). KfW’s institute-specific funding costs are used to calculate the FCA. Value adjustments are not calculated separately for each transaction but for the portfolio of transactions on which a framework agreement is based. The allocation to individual transactions is based on the relative credit adjustment approach. The resulting adjustment amounts are very low as KfW generally pledges collateral for positive market values in accordance with standard market collateral agreements. In accordance with market practices, risk-free overnight interest rates are used for the valuation of the derivatives portfolio.

The fair value of Loans to banks and customers is calculated using the discounted cash flow (“DCF”) method based on the discounting of the risk-adjusted cash flows. The expected loss calculated for the respective reporting date is used to correct the contractual cash flows.

The holding arrangements for the Federal Republic of Germany are accounted for as receivables from the Federal Government. The receivables comprise the KfW-funded purchase price of the items held for the Federal Republic of Germany as well as an additional benefit from the sales proceeds of the items. The receivables are measured at fair value, with the additional benefit being accounted for as a key value driver using current market prices of the items held.

Valuation methods based on net asset value are also used in addition to the discounted cash flow method for valuation of equity investments. Due to the three-month time lag between the group’s reporting date (31 December 2023) and the reporting date for the equity funds (30 September 2023), the net asset values are adjusted, if necessary, in the event of short-term changes in the economic environment or new information regarding individual investments.

The Federal Republic of Germany’s liability for specific KfW liabilities in accordance with Article 1a of the KfW Law has an advantageous effect on KfW’s ability to refinance itself. In determining the fair value of KfW’s liabilities, the effect of this explicit direct state guarantee is also taken into account. The state guarantee does not represent an independent unit of account.

The fair value of financial instruments due on demand, such as Cash reserves or receivables and liabilities due on demand, is their carrying amount.

When no prices from liquid markets are available and prices on inactive markets cannot be provided by price service agencies, recognised valuation models and methods are used. The DCF method is used for securities, swaps, and currency and money market transactions with no embedded options or complex coupons. Stand-alone options, as well as derivatives with embedded options, triggers, guaranteed interest rates and/or complex coupon agreements, are measured using recognised models (e.g. Hull & White) unless they are listed on a stock exchange.

The aforementioned models are calibrated, if possible, on the basis of observable market data for instruments that are similar in terms of the type of transaction, maturity, and credit quality.

E. Financial guarantee contracts

A financial guarantee contract is a contract that requires the guarantor to make specified payments that compensate the holder for a loss it incurs because a specified debtor fails to meet its contractual payment obligations. For the guarantor, a financial guarantee contract is to be measured at fair value at initial recognition, which is zero at contract conclusion, as the value of the premium on fair value contracts is equal to the value of the guarantee obligation (net presentation). Moreover, fair value at initial recognition is no longer carried forward in such net presentation, but rather incoming premium payments are recognised through profit or loss in Net commission income. If a financial guarantee contract is not designated to the fair value measurement category at initial recognition, a provision is recognised for expected losses from a financial guarantee as part of a subsequent assessment, applying IFRS 9 rules for risk provisioning. The group does not voluntarily designate financial guarantee contracts for measurement at fair value.

For the holder, on the other hand, this is a contingent asset that may not be capitalised. However, a (non-impaired) financial guarantee contract is, for the holder, collateral that may be included in calculating risk provisions for the recognised reference asset.

Provisions for expected losses from financial guarantees are reported under Provisions for credit risks.

F. Reporting and notes

Current interest and similar income from a financial asset are generally recorded under Interest income. If, due to the low interest environment, negative interest rates arise from a financial asset, these are also recorded in Interest income, with a minus sign. Premiums, discounts, processing fees and charges are amortised in Interest income using the effective interest method. Processing fees that are not amortised under the effective interest method are recognised under Commission income.

Any fair value changes of financial assets at fair value through profit or loss are recognised in Net gains/losses from other financial instruments at fair value through profit or loss.

Current interest arising from a financial liability is recorded in Interest expense. This also applies in the case of negative interest resulting from a low interest rate environment. Premiums and discounts are also amortised in Interest expense using the effective interest method over the expected life.

Results from the repurchase of own issues categorised as liabilities measured at amortised cost are recognised at the repurchase date in Net other operating income.

Classes for financial instruments have been largely defined in agreement with the group's business model which is focused on the lending business. The definition is based in particular on the national requirements for balance sheet classification at banks and financial services institutions. The following classes (and sub-classes) were defined for financial assets and financial liabilities:

Transition of the statement of financial position items for financial instruments to classes in accordance with IFRS 7.6

Statement of financial position item	Class	Sub-class
Financial assets at amortised cost	<i>Loans and advances to banks</i>	Money-market transactions
		Loans and advances
		Promissory note loans
Financial assets at amortised cost	<i>Loans and advances to customers</i>	Other receivables
		Money-market transactions
		Loans and advances
Financial assets at amortised cost	<i>Securities and investments</i>	Promissory note loans
		Other receivables
		Bonds and other fixed-income securities
Financial assets at fair value	<i>Loans and advances to banks</i>	Money-market transactions
		Loans and advances
		Promissory note loans
Financial assets at fair value	<i>Loans and advances to customers</i>	Other receivables
		Money-market transactions
		Loans and advances
Financial assets at fair value	<i>Securities and investments</i>	Promissory note loans
		Other receivables
		Bonds and other fixed-income securities
Financial assets at fair value	<i>Securities and investments</i>	Shares and other non-fixed income securities
		Equity investments
		Shares in non-consolidated subsidiaries
Financial assets at fair value	<i>Other derivatives</i>	Interest-related derivatives
		Cross-currency derivatives
		Other derivatives
Financial liabilities at amortised cost	<i>Liabilities to banks</i>	Money-market transactions
		Promissory note loans
		Other financial liabilities
Financial liabilities at amortised cost	<i>Liabilities to customers</i>	Money-market transactions
		Promissory note loans
		Other financial liabilities
Financial liabilities at amortised cost	<i>Certificated liabilities</i>	Money-market issues
		Bonds and notes
		Money-market transactions
Financial liabilities at fair value	<i>Liabilities to banks</i>	Promissory note loans
		Other financial liabilities
		Money-market transactions
Financial liabilities at fair value	<i>Liabilities to customers</i>	Promissory note loans
		Other financial liabilities
		Money-market issues
Financial liabilities at fair value	<i>Certificated liabilities</i>	Bonds and notes
		Interest-related derivatives
		Cross-currency derivatives
Financial liabilities at fair value	<i>Other derivatives</i>	Other derivatives

In addition, the items from the asset and liability sides of the statement of financial position, Value adjustments from macro fair value hedge accounting, Derivatives designated for hedge accounting, and Off-balance sheet transactions each form a separate class.

The Loans and advances to banks class primarily consists of the promotional lending business, in which loans are typically granted to the final borrowers through accredited commercial banks. These assets are presented in this class when the commercial banks underwrite part of the liability. Promotional loans that commercial banks on-lend without underwriting of liability are recognised in the class Loans and advances to customers.

The Loans and advances to banks and Loans and advances to customers classes also include loans that benefit from a subsidy (interest rate reductions) granted by KfW under the ERP economic promotion programme. The promotional grants awarded annually to KfW through the ERP Special Fund based on the ERP Economic Planning Act (*ERP-Wirtschaftsplangesetz*) for the purpose of executing the ERP economic promotion programme are recognised as deferred income in Other liabilities and are amortised in profit or loss under Interest income as the underlying funding expenses occur.

The Securities and investments class mainly comprises bonds and other fixed-income securities held in securities portfolios that belong to KfW and its subsidiaries, along with equity investments.

The securities portfolios mainly serve to support KfW's liquidity position and to stabilise and ensure the group's promotional capacity in the long term.

To achieve the same accounting treatment for equity investments with and without significant influence, individual group business areas that provide equity finance as part of their promotional mandate are considered as venture capital organisations for accounting purposes provided they meet the respective requirements. These equity investments, like other equity investments, are allocated to the Securities and investments class.

The Liabilities to banks and Liabilities to customers classes largely comprise KfW Group borrowings and money-market transactions.

Issued bonds, notes and money market securities are allocated to the Certificated liabilities class. Own issues repurchased in the open market are deducted from the liabilities as of the repurchase date.

In some of the Notes, these classes are broken down into additional sub-classes that relate mainly to products (for example, Loans and advances to banks are reported separately for money-market transactions and loans and advances).

Information about the type and extent of risks associated with financial instruments is also provided in the risk report section of the combined management report.

(8) Derivatives and hedging relationships

A. Hedging transactions/hedge accounting

KfW Group enters into financial derivatives to economically hedge interest rate fluctuation and currency risks, particularly those related to funding, lending and securities activities. Interest rate swaps, interest rate/currency swaps and base currency swaps are mainly used for this purpose. Interest rate swaps are used to convert fixed rate interest payments of the issuances or lending transactions into variable payments. In the case of refinancing in a foreign currency, payments are also converted into the functional currency (EUR). The hedge ratio for the issues is normally 1:1. Ineffectiveness therefore results exclusively from unhedged risks such as counterparty risk or tenor or basis spread risks.

Economic hedging relationships are designated as hedge accounting relationships or designated as fair value through profit or loss by using the fair value option when the IFRS requirements are met. Economic hedging relationships can

also be recognised in the financial statements through bifurcation of separable embedded derivatives on the liabilities side that are accounted for through profit or loss. In these cases, if the hedges are economically effective, the impact on the financial statements, with respect to the hedged risks, from the instruments used for hedging purposes and the hedged transactions will substantially offset each other, so that the group's income statement substantially reflects the risk-mitigating impact of these hedging relationships.

However, not all economic hedging relationships qualify for hedge accounting or the fair value option. In these cases, the risk-mitigating impact of the derivatives used for hedging purposes is not reflected in the accounts because the hedged risk associated with the underlying transactions is not recognised in profit or loss under IFRS. The applicable recognition requirements may therefore lead to one-sided valuation results from the derivatives used for hedging purposes in the group's income statement – as well as volatility in profit or loss – despite an economically effective hedging relationship.

Hedge accounting in the group is used solely in the form of fair value hedges to recognise economic hedging relationships. The hedging relationship is designated, firstly, at individual transaction and group level in the form of micro fair value hedge accounting, and, secondly, at portfolio level in the form of macro fair value hedge accounting. The group has exercised the option of applying IAS 39 rules for hedge accounting. If risk-free overnight interest rates are used in the valuation of the derivatives, this market practice is also subject to micro fair value hedge accounting for the measurement of the hedged risk related to the hedged item. The hedged risk in macro fair value hedge accounting generally relates to the variable interest rates of the derivative portfolio. The effectiveness of the hedging relationships is assessed using the dollar offset method and a regression analysis (80%–125% range for assessing effectiveness).

In micro fair value hedge accounting, interest and currency risks from bonds allocated to Securities and investments (in the Financial assets at amortised cost item) and, above all, from borrowings (in the Financial liabilities at amortised cost item) are hedged. In micro fair value hedging relationships at individual transaction level, the fair value changes attributable to the hedged risks are reported as an adjustment of the carrying amount of the hedged items with the corresponding gain or loss recognised under Net gains/losses from hedge accounting. The hedging instruments used for this purpose are recognised at fair value in Derivatives designated for hedge accounting. Changes in the value of the hedging instruments are also recognised in Net gains/losses from hedge accounting, largely compensating the profit or loss effects of the hedged items.

Macro fair value hedge accounting is used to hedge against interest risks primarily from loan receivables (in the Financial assets at amortised cost item) and firm obligations via future fixed-rate financing that are hedged against interest risks as part of dynamic asset liability management in the group. The fair value changes attributable to the hedged risks in the hedged portfolios in the Amortised cost category (loans and advances / liabilities) are accounted for in Value adjustments from macro fair value hedge accounting on the assets or liabilities side. Fair value changes attributable to the hedged risks from the hedged portfolios are reported in Net gains/losses from hedge accounting.

The hedging instruments are reported at fair value in Derivatives designated for hedge accounting. Changes in the value of these instruments are also recognised in Net gains/losses from hedge accounting, with the effect that they almost fully offset the earnings effects from the valuation of the hedged portfolios.

The portfolio of hedged items is updated monthly in the context of a dynamic hedge de-designation and designation process. The resulting fair value adjustments are amortised over the residual term of the maturity period in Net gains/losses from hedge accounting. Disposals from the hedged portfolios result in a proportional amortisation of the related fair value adjustments in Net gains/losses from hedge accounting. When cash flows from hedging

instruments are derecognised while the economic hedge based on non-derivative financial instruments remains, the related fair value adjustments from the hedged portfolios are amortised in Net interest income.

If the strict hedge accounting requirements for the designation of hedging relationships between derivatives and financial assets/liabilities are not fulfilled within KfW Group, the fair value option is used in certain circumstances. The fair values of the hedging instruments are presented in Financial assets at fair value or Financial liabilities at fair value, and the changes are presented in Net gains/losses from other financial instruments at fair value through profit or loss. These are largely offset by valuation effects from the hedged transactions. Fair value changes in liabilities resulting from changes in KfW's own credit risk are directly recognised in Other comprehensive income ("OCI").

Further derivative financial instruments are used to hedge risks, but their economic hedging relationships are not reflected in the accounts. The fair values of these hedging instruments are also presented in Financial assets at fair value or Financial liabilities at fair value, and the changes are presented in Net gains/losses from other financial instruments at fair value through profit or loss.

KfW Group neither uses derivatives for trading purposes nor does it enter into derivatives acting as a broker or intermediary on behalf of third parties.

B. Embedded derivatives

Derivative financial instruments can be part of a hybrid (combined) financial liability as embedded derivatives. Under certain conditions, they are accounted for separately from the host contract, similar to stand-alone derivatives. They must be bifurcated if the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract. The host contract is accounted for according to its classification at inception.

KfW Group enters into contracts with separable embedded derivatives particularly with respect to its own funding. In the case of these products, the embedded derivatives must be bifurcated and recognised separately. Changes in fair value are then recognised in Net gains/losses from other financial instruments at fair value through profit or loss in the sub-line item Financial derivatives not qualifying for hedge accounting, where they have a compensatory effect on the valuation of the economic hedging derivatives.

The fair value option was selected for certificated liabilities with bifurcated (embedded) derivatives recorded prior to bifurcation.

(9) Offsetting of financial instruments

KfW uses the EUREX central clearing system to settle part of its derivative transactions. This form of settling derivative transactions results in the recognition of a net amount in the statement of financial position for the transactions affected, as the involvement of EUREX as the central counterparty (CCP) meets all of the requirements for offsetting as set out in the relevant IFRS standard. This means that positive and negative fair values of derivatives for which EUREX acts as the central counterparty are offset against the corresponding collateral and reported in a net item in the statement of financial position.

In the case of reverse repo and repo transactions, for which EUREX acts as the central counterparty, receivables and liabilities are also offset if the currencies and the value dates are the same.

In addition, framework agreements featuring netting agreements are in place between KfW and its business partners for OTC derivatives and securities repo transactions.

One form of netting is close-out netting, which provides for the elimination of all rights and obligations relating to individual transactions under the framework agreement upon termination of said framework agreement by the contractual partner, or upon the latter's insolvency, with the rights and obligations replaced by a single compensation claim (or obligation) in the amount of the net replacement costs of the terminated individual transactions. This does not represent a present legal claim for offsetting.

Close-out netting is not to be confused with the offsetting of payments in normal business. The same framework agreement may provide for the latter, i.e. that payments due on the same day and in the same currency may be offset and a net payment made instead of each individual payment (payment netting). This represents a present legal claim for offsetting.

All of KfW's framework agreements relating to bilateral OTC derivatives (not in central clearing) include close-out netting agreements with the business partners. Payment netting is limited in the agreement to the relevant individual transaction, so that multiple transaction payment netting does not occur. The requirements for offsetting financial assets and financial liabilities are therefore not met for these KfW OTC derivatives.

KfW's framework agreements for repo transactions include close-out netting agreements and, in some cases, payment netting agreements with the business partners as well. However, as KfW does not, as a rule, perform multiple transaction payment netting with repo transactions, the requirements for the offsetting of financial assets and financial liabilities are not met for such KfW repo transactions.

In accordance with the collateral agreements concluded for OTC derivatives and repo transactions, the values of the available collateral are used in determining the single compensation claim (or obligation) in close-out netting. Both cash and securities are permitted forms of collateral under the existing collateral agreements between KfW and its business partners. The collateral agreements provide for a transfer of title in the case of securities as collateral. Consequently, the transferred securities are not subject to any selling or pledging restrictions.

(10) Foreign currency translation

The functional currency of KfW and its consolidated subsidiaries is the euro. Monetary assets and liabilities denominated in a foreign currency are converted at the spot rate as of the reporting date.

Non-monetary assets and liabilities denominated in a foreign currency are normally converted at historical rates if they are measured at (amortised) cost. Translation is made using the European Central Bank reference rates.

The changes in value resulting from foreign currency translation are reported in the income statement under Net gains/losses from other financial instruments at fair value through profit or loss.

(11) Revenue from contracts with customers

IFRS 15 defines the nature, amount and timing of revenue arising from contracts with customers. Such revenue includes fees which are not an integral part of the effective interest rate and which are reported under Commission income. In this context, a five-step principle-based model is to be applied to relevant customer contracts. Moreover, the Notes are to include comprehensive detailed quantitative and qualitative information. IFRS 15 does not apply to fees and charges that are an integral part of the effective interest rate as they fall under the scope of IFRS 9.

There are primarily mandate contractual arrangements with the Federal Government as contracting authority within the meaning of IFRS 15. They include fees for the administration of German Financial Cooperation for the promotion

of developing countries and emerging economies, fees for the administration of certain programmes subsidised by the Federal Government, and fees for debt collection on certain loans. The group also charges fees for administrative services for other mandate agreements as well as for processing services and for services for lending and trust activities. Individual services may be grouped together into a bundle of services that qualifies as a separate performance obligation within the meaning of IFRS 15. The value of the transaction is therefore not broken down.

As performance obligations are mostly satisfied over time, revenue from customer contracts is recognised according to the measure of progress and is thus normally recognised over time.

KfW Group has no items that require recognising customer acquisition or contract fulfilment costs as assets. One-time advance payments to be allocated are deferred and recognised as contract liabilities in the statement of financial position under Other liabilities.

If the service has already been performed but fees have not yet been paid or if there is not yet any claim to payment, a contract asset is to be recognised in the statement of financial position under Other assets. If the claim becomes unconditional, the contract asset is to be reclassified as a Trade receivable adjusting the carrying amount where applicable. This rule is applied to fees for administration of certain programmes subsidised by the Federal Government. Based on the credit rating and short remaining life, no expected credit loss is calculated.

(12) Promotional lending business at KfW

The general promotional loans market, which distinguishes itself from the market for general lending business, is relevant for KfW's promotional lending business conducted as part of its legal promotional mandate. This market is characterised by the fact that promotional banks, as part of their legal mandate, pass on all funding advantages to the ultimate borrowers in financing projects eligible for promotion. In setting the terms and conditions of the corresponding promotional loans, KfW uses its current term-differentiated refinancing rates.

At initial recognition of such loans, the fair value is thus equivalent to the transaction value.

KfW also grants promotional loans which include additional subsidies granted during the first fixed interest rate period, in the form of interest rate reductions impacting KfW's earnings position. The fair value of these promotional loans – measured using the parameters of the general promotional loan market – is thus not equivalent to the transaction value at initial recognition as in this case the interest rate is below the market rate.

The difference that normally results from such loan commitments – present value of the nominal scheduled interest rate reductions during the first fixed interest rate period – is recognised in profit or loss as an interest expense and accounted for as an adjustment to the carrying amount in loans and advances under the item Financial assets at amortised cost. The adjustment to the carrying amount is amortised in Net interest income using the effective interest rate method. In the event of unscheduled repayment in full, this is recognised in profit or loss under Interest income.

Differences that relate to irrevocable loan commitments are reported in Provisions. Changes to the portfolio are offset via the adjustments to the carrying amounts of already disbursed promotional loans recognised on the assets side.

(13) Non-current assets held for sale

Under IFRS 5, separate presentation and measurement requirements apply to non-current assets held for sale if the assets are available for immediate sale and such sale is highly probable. Assets that meet the IFRS 5 criteria are reported in the separate statement of financial position item: Non-current assets held for sale. The IFRS 5 measurement

requirements are not applied if they relate to financial assets. In this case, the IFRS 9 measurement requirements continue to apply instead.

(14) Repurchase agreements and securities lending

KfW Group enters into repurchase agreements as standardised repos or reverse repos. These are combinations of simultaneous spot and forward transactions on interest-bearing securities with the same counterparty. The terms and modalities of collateral and its use follow common market practice. Credit claims are also an eligible type of collateral for open-market transactions.

The interest-bearing securities sold under repo transactions (spot sales) continue to be recognised and measured under Financial assets at amortised cost. The repayment obligation towards the counterparty is carried under Financial liabilities at amortised cost for the amount of cash consideration received. The repo rate as a fee for borrowing is recorded by the group, as the borrower, under Interest expense over the term of the agreement. The borrower is entitled to the coupon on the security. A repayment claim is recognised and measured under Financial assets at amortised cost for the amount of cash outflow generated by reverse repos. The securities received (spot purchases) are not recognised or measured. The repo rate as a fee for lending is recorded in the group as the lender under Interest income over the term of the agreement.

The term “securities lending” refers to transactions in which securities are transferred from the lender to the borrower with the obligation that the borrower transfer back securities of the same type, quality and quantity at the end of the agreed term and pay a usage fee for the duration of the loan. IFRS 9 does not distinguish between collateralised and uncollateralised securities lending. The cash collateral generally to be pledged to the lender is to be capitalised as a receivable by the borrower under the item Financial assets at amortised cost. The securities are accounted for by the lender, which bears the credit and market risk.

With respect to the refinancing of the loans mandated to it for the energy sector support measures, KfW acts as both borrower and lender in essentially uncollateralised securities lending transactions in dealing with the German Finance Agency, although as a lender it does not recognise the securities. They remain capitalised at the German Finance Agency. KfW recognises the cash collateral received under the item Financial liabilities at amortised cost.

The fee received or paid is recognised in Net interest income.

(15) Property, plant and equipment

The land and buildings and the plant and equipment reported by KfW Group are carried at cost less depreciation on a straight-line basis and any impairment, both recognised in Administrative expense. In accordance with the requirements in IAS 36, an impairment is recognised if there are indications of impairment and the carrying amount of the asset exceeds the recoverable amount, i.e. the lower of fair value less costs of disposal and value in use. The useful life is determined based on expected wear and tear. KfW Group assumes an estimated useful life of 40 to 50 years for buildings, four years for workstation computer equipment and five to 15 years for other property, plant and equipment. Gains and losses from the sale of property, plant and equipment are recognised in Net other operating income.

Payments in advance and assets under construction are recognised in Other property, plant and equipment and are not subject to depreciation.

(16) Leases

In accordance with IFRS 16 “Leases”, KfW as lessee reports each right of use in Property, plant and equipment and the associated lease obligation in Other liabilities. The lessee shall measure the lease liabilities at the present value of the lease payments not paid at that date, discounted at the lessee’s incremental borrowing rate. The incremental

borrowing rate is the rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. Accordingly, KfW determines the incremental borrowing rate of the basis of the refinancing rate it uses for its own issues.

KfW applies IAS 36 “Impairment of Assets” to rights of use to determine whether the right of use is impaired and to recognise any impairment loss identified. Depreciation, amortisation and impairments of rights of use are reported in Administrative expense. Interest expense from discounting the rights of use and the interest compounded on lease liabilities are included in Other interest expense.

The only minimal effects on net assets, financial and earnings position arise exclusively from the “leasing buildings” class.

For short-term leases with a maximum term of twelve months and leases in which the underlying asset is of low value, KfW utilises the relief provided for in IFRS 16.5 and does not recognise a right of use.

The small number of contracts in which KfW Group acts as a lessor are classified as operating leases. The leased asset is recognised under Property, plant and equipment and the corresponding rental income in Other operating income.

(17) Intangible assets

Under Intangible assets, KfW Group reports purchased and internally generated software at cost, less straight-line amortisation and impairments, both recognised in Administrative expense. The useful life is determined based on expected wear and tear. KfW Group assumes a useful life of five years.

Assets are impaired when the carrying amount of an asset exceeds the recoverable amount. An impairment is recorded when no future economic benefits can be identified.

Internally generated software under development is reported under Other intangible assets and is not subject to amortisation.

(18) Risk provisions

Provisions include provisions for pensions and similar commitments, credit risks, interest rate reductions in irrevocable loan commitments granted by KfW in the promotional lending business and negatively impacting its earnings position, as well as other obligations of uncertain amount and timing involving a probable outflow of funds.

The employees of the group participate in a company pension plan that pays retirement, long-term disability and survivor benefits. KfW Group has various pension plans, consisting exclusively of defined-benefit schemes. The benefits largely depend on the length of company service and salary. The pension plan that was applied for new hires until 1985 offered a full pension (*Gesamtversorgung*), in which a certain portion of the income paid before the benefits were due was allocated as a benefit after deducting the state pension. Apart from employer-financed pension plans there are also plans in place involving contributions by employees.

The group pension plans are subject to the following risks in particular: longevity, interest rate fluctuation, pension adjustment risk as well as the risk of future changes to the assessment bases.

Longevity risk is the risk that higher expenses will be incurred for the company pension plan if the pensioners live longer than projected. In general, this risk is balanced out across all pensioners and would only have an impact if life expectancy were to rise faster in the future than anticipated.

Due to the long term of the company pension plan, provisions for pension obligations are subject to general interest rate fluctuation risks.

Pension adjustment risk largely relates to the pension plan offering a full pension (*Gesamtversorgung*). In this scheme, benefits are recalculated as soon as there is a change in the base income eligible for pension or the state pension to be offset. Another pension plan must be examined regularly in terms of forecast and actual pension adjustments, undertaking such adjustments if necessary.

The amount of the benefits promised under the existing pension plans in the group depends, among other things, on development of the income eligible for benefits and the social security contribution ceiling (*Beitragsbemessungsgrenze*). There is a risk that the basis of assessment will develop differently than was assumed.

Pension obligations are calculated by an independent qualified actuary in accordance with the projected unit credit method on the basis of group-wide uniform parameters such as age, length of company service and salary. The pension provision is recognised at the present value of the defined-benefit obligations as of the reporting date. The discount factor is based on current market conditions for a portfolio of high-quality corporate bonds/bonds from supranational issuers with a maturity matching that of the obligations. The definition of the portfolio takes into account current market conditions. Additional demographic factors (including the 2018 G Heubeck actuarial tables) and actuarial assumptions (rate of salary and pension increases, rate of staff turnover, etc.) are taken into account.

No plan assets were defined for the pension obligations of the group, so the related special accounting rules do not apply. Provisions for pensions and similar obligations are financed in-house with assets with corresponding maturities.

Actuarial gains and losses are immediately recognised at the time they occur. They occur as a result of remeasurement of pension obligations as of the reporting date compared to the figures forecast at the beginning of the year.

Additions to pension provisions distinguish between service cost and interest expense. Service cost is reported under Administrative expense; interest expense is reported under Other interest expense. The pension provision changes recognised directly in equity comprise the actuarial gains and losses reported in Revaluation reserves; these are reported in Other comprehensive income.

Pension-like obligations include commitments for deferred compensation, early retirement and partial retirement. Actuarial reports are prepared and a provision is recognised accordingly for these types of commitments as well. No actuarial gains or losses are incurred.

Other provisions, including those for obligations to employees and for audit and consultancy services, are recognised at the estimated expenditure. Long-term provisions are discounted where the effect is material. Added to this are obligations arising from the assumption of the tasks of the State Insurance Company of the German Democratic Republic in liquidation (*Staatliche Versicherung der Deutschen Demokratischen Republik in Abwicklung – "SinA"* institution under public law), which are offset by receivables in the same amount from the Federal Agency for Special Tasks Associated with Unification (*Bundesanstalt für vereinigungsbedingte Sonderaufgaben – "BvS"*) reported under Other assets. If the provision is not required in full or if the reason for creating the provision no longer applies, the provision is reversed via the same income statement item that was used in creating the provision.

(19) Income tax assets and liabilities

Income taxes are accounted for and measured in accordance with IAS 12. Current and deferred income tax assets are reported in the item Income tax assets; current and deferred income tax liabilities under Income tax liabilities. Current income tax assets and liabilities are recognised in the amount expected to be returned or paid in the future.

The tax rates applicable are those in effect on the reporting date or those that can be assumed with sufficient certainty to be in effect on the reporting date. KfW itself is exempt from income taxes pursuant to Section 5 (1) no. 2 of the German Corporation Tax Act (*Körperschaftsteuergesetz – KStG*) and Section 3 no. 2 of the German Trade Tax Act (*Gewerbsteuergesetz – GewStG*).

Deferred income tax assets and liabilities are generally recognised on temporary differences between the carrying amounts of assets and liabilities in accordance with IFRS and the corresponding tax value. Deferred tax assets are only recognised for temporary differences from items and for unused tax loss carryforwards if their realisation is sufficiently probable; the impairment test is carried out on the basis of group business sector planning for each group company. Deferred taxes are measured at the tax rates that have been set at the respective reporting date and that are relevant to the timing of realisation of the deferred taxes. Deferred income tax assets and liabilities are offset on the assumption that they relate to the same taxable entity, the same tax type and the same tax authority.

If temporary differences have arisen from a transaction recognised directly in equity, the resulting deferred income tax assets and liabilities are also recognised directly in equity. Income from and expenses for current and deferred income taxes is recognised in the consolidated income statement under Income taxes.

(20) Equity

The equity structure is determined, in particular, by the KfW Law and the requirements of IFRS.

Pursuant to Article 10 (2) and (3) of the KfW Law, KfW's net income for the period determined in accordance with the German Commercial Code is transferred to reserves and is included in equity under IFRS.

KfW Group reports a fund for general banking risks in equity. Additions to or reductions of the fund are presented in accordance with IFRS as an addition to or reduction of retained earnings.

Under IFRS, any remaining consolidated net income is allocated to Other retained earnings in the same period.

Revaluation reserves comprise transactions to be recognised directly in equity in accordance with IFRS. These include valuation results from the change in own credit risk of liabilities measured at fair value through profit or loss and from defined benefit pension obligations. They also may include deferred taxes, depending on the underlying transaction.

(21) Trust activities

Assets and liabilities held by KfW Group in its own name but for the account of third parties are not recognised if the trustor retains all risks and opportunities. At KfW, this applies in particular to loans and equity investments made by KfW on behalf of the Federal Government. Both opportunities and risks remain with the Federal Government in such transactions.

Fees from trust activities are recognised under Commission income.

Further information can be found in the note "Financial instruments" in section "A. Classification and measurement" in the comments on mandated transactions.

Notes to the statement of comprehensive income

(22) Net interest income

Analysis of Net interest income

	2023	2022
	EUR in millions	EUR in millions
Interest and similar income from loans and advances to banks and customers	8,806	4,620
Similar income from off-balance sheet transactions	33	33
Interest income from securities and investments	454	113
Interest income from hedges recognised in the statement of financial position	6,409	-1,763
Other interest income	1,598	63
Interest income from the effective interest method	17,300	3,065
Interest and similar income from loans and advances to banks and customers	329	2
Interest income from securities and investments	85	87
Interest income from Other derivatives	685	632
Other interest income	1,099	721
Interest income, total	18,399	3,786
Interest and similar expense for liabilities to banks and customers	1,157	120
Interest expense for certificated liabilities	6,623	4,194
Interest expense from hedges recognised in the statement of financial position	7,078	-2,935
Interest expense from Other derivatives	417	-65
Other interest expense	667	323
Interest expense, total	15,943	1,638
Net interest income	2,456	2,148

Expenses for granting promotional loans below market rates – due to additional promotional funds in the form of interest rate reductions with an impact on KfW's earnings position – amount to EUR 282 million (2022: EUR 267 million) and are reported in Other interest expense. In addition to the charges resulting from the present value of the nominal scheduled interest rate reductions in new lending business, the Other interest expense item also comprises the expenses arising from amortisation at a constant effective interest rate. Interest and similar income from loans and advances to banks and customers also comprises income from accrual-based amortisation in the amount of the pro-rata nominal planned interest rate reductions for these promotional loans in the amount of EUR 189 million (2022: EUR 186 million).

Other interest income comprises interest income from balances with central banks in the amount of EUR 1,596 million (2022: EUR 54 million).

Interest income from stage 3 loan receivables in the amount of EUR 63 million (2022: EUR 36 million) is reported under Interest and similar income from loans and advances to banks and customers.

Interest income from hedges recognised in the statement of financial position comprises interest income from derivatives designated for hedge accounting as well as interest income from amortisation of value adjustments from hedge accounting. Interest income or interest expense from derivatives designated for hedge accounting is recognised depending on the related hedged item in the interest income or interest expense from hedges recognised in the statement of financial position for related financial assets or liabilities. Including the interest income or expense from the hedged items and derivatives in hedge accounting means that presentation is based on the economic substance of the hedged financial assets (floating rate financial assets) or hedged financial liabilities (floating rate financial liabilities).

Gross analysis of negative interest contributions

	2023	2022
	EUR in millions	EUR in millions
Interest income, total	18,399	3,786
Negative interest from the lending business	60	203
Interest income from the deposit-taking business	303	418
Interest income (gross)	18,763	4,408
Interest expense, total	15,943	1,638
Negative interest from the deposit-taking business	303	418
Interest expense from the lending business	60	203
Interest expense (gross)	16,307	2,259

The negative interest contributions included in Interest income resulted from loans and advances to banks, loans and advances to customers, and securities and investments.

The positive interest contributions in Interest expense are largely due to liabilities to banks and liabilities to customers and certificated liabilities.

(23) Net gains/losses from risk provisions

Analysis of Risk provisions by transaction

	2023	2022
	EUR in millions	EUR in millions
Expenses for risk provisions for lending business (Loans and advances to banks/customers and off-balance sheet lending transactions)	905	1,193
Expenses for additions to risk provisions	873	1,163
Direct write-offs	32	30
Expenses for risk provisions for securities and investments	4	10
Expenses for additions to risk provisions	4	10
Expenses for risk provisions	910	1,203
Income from risk provisions for lending business (Loans and advances to banks/customers and off-balance sheet lending transactions)	1,063	1,078
Income from the reversal of risk provisions	998	1,016
Income from recoveries of amounts previously written off	66	62
Income from risk provisions for securities and investments	8	9
Income from the reversal of risk provisions	8	9
Income from risk provisions	1,072	1,086
Net gains/losses from non-substantial contractual modifications	-1	2
Other risk provisions for lending business	8	-10
Total	169	-124

(24) Net commission income

Analysis of Commission income

	2023	2022
	EUR in millions	EUR in millions
Revenue from contracts with customers	610	639
From mandate contractual arrangements with the Federal Government ¹⁾	539	584
Fee income from mandate agreements, processing activities and services	16	17
Fee income from the lending business	47	38
Other revenue from contracts with customers	7	0
Other commission income	12	9
Financial guarantee contracts	0	0
Other	12	9
Commission income, total	622	649

¹⁾ Includes commission income in the amount of EUR 70 million (2022: EUR 69 million) from mandate contractual arrangements with the Federal Government in trust activities.

Commission income by segment in financial year 2023

2023	Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	KfW Capital	Export and project finance
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Commission income	254	36	13	43
of which Federal Government	251	32	6	0
%	99%	88%	48%	0%

2023	KfW Development Bank	DEG	Financial markets	Head office	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Commission income	260	11	0	5	622
of which Federal Government	245	0	0	4	539
%	94%	4%	0%	87%	87%

Commission income by segment in financial year 2022

2022	Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	KfW Capital	Export and project finance
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Commission income	308	43	4	30
of which Federal Government	305	38	4	0
%	99%	89%	100%	0%

2022	KfW Development Bank	DEG	Financial markets	Head office	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Commission income	249	10	0	4	649
of which Federal Government	231	2	0	3	584
%	93%	26%	0%	72%	90%

Out-of-period income

	2023	2022
	EUR in millions	EUR in millions
Revenue in current period resulting from services performed in the previous period(s)	8	31

Analysis of Commission expense

	2023	2022
	EUR in millions	EUR in millions
Commission expense for lending business	10	10
Other commission expense	18	22
Commission expense	29	32

(25) Net gains/losses from hedge accounting

Analysis of Net gains/losses from hedge accounting by type of hedging relationship

	Hedge ineffectiveness		Items in the income statement that contain cases of hedge ineffectiveness
	2023	2022	
	EUR in millions	EUR in millions	
Micro fair value hedges	44	18	Net gains/losses from hedge accounting
Interest risk	45	29	–
Interest-currency risk	0	–11	–
Macro fair value hedges	247	131	Net gains/losses from hedge accounting
Interest risk	247	131	–
Total	291	150	Net gains/losses from hedge accounting

Analysis of Net gains/losses from micro fair value hedge accounting by hedged item

	2023	2022
	EUR in millions	EUR in millions
Hedging of securities and investments	-2	-1
Hedging of liabilities to banks and customers	5	2
Hedging of certificated liabilities	42	17
Subtotal: Effectiveness of hedges	45	18
Amortisation of value adjustments	0	0
Total	44	18

Gross analysis of valuation gains/losses from micro fair value hedge accounting: Comparison of hedged items and hedging instruments in financial year 2023

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Hedging of securities and investments	1,156	-1,159	-2
Hedging of liabilities to banks and customers	-860	864	5
Hedging of certificated liabilities	-12,952	12,994	42
Total	-12,656	12,700	44

Gross analysis of valuation gains/losses from micro fair value hedge accounting: Comparison of hedged items and hedging instruments in financial year 2022

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Hedging of securities and investments	-2,550	2,550	-1
Hedging of liabilities to banks and customers	2,195	-2,193	2
Hedging of certificated liabilities	30,856	-30,839	17
Total	30,501	-30,482	18

**Gross analysis of net gains/losses from macro fair value hedge accounting:
Comparison of hedged items and hedging instruments in financial year 2023**

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Valuation result	6,589	-7,307	-718
Amortisation	4,465	-3,586	879
Realisation	85	0	85
Net gains/losses from macro fair value hedge accounting	11,139	-10,893	247

**Gross analysis of net gains/losses from macro fair value hedge accounting:
Comparison of hedged items and hedging instruments in financial year 2022**

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Valuation result	-32,696	31,555	-1,142
Amortisation	2,290	-1,050	1,241
Realisation	32	0	32
Net gains/losses from macro fair value hedge accounting	-30,374	30,505	131

Net gains/losses from macro fair value hedge accounting comprise the valuation of hedging instruments and the valuation of hedged risks from the hedged portfolios. It also includes the amortisation of the value adjustments from the dynamic hedge designation and de-designation and the pro rata reversal of value adjustments in the event of derecognition of financial instruments from the underlying portfolios as well as the pull-to-par effect of the hedging derivatives.

(26) Net gains/losses from other financial instruments at fair value through profit or loss
Analysis of Net gains/losses from other financial instruments at fair value through profit or loss

	2023	2022
	EUR in millions	EUR in millions
Loans and advances to banks/customers	19	-10
Loans and advances	15	3
Miscellaneous receivables (money market transactions, promissory note loans and Other receivables)	4	-13
Securities and investments	-38	-46
Bonds and other fixed-income securities	0	0
Equity investments	-37	-46
Liabilities to banks and customers	-39	257
Certificated liabilities	-147	1,593
Other derivatives	104	-1,820
Financial derivatives not qualifying for hedge accounting	104	-1,820
Foreign currency translation	-75	91
Total	-177	64

Net gains/losses from assets include the net gains/losses from holding arrangements for the Federal Republic of Germany – if attributable to KfW, KfW IPEX-Bank's syndication business with a focus on short-term placement, loans that do not meet the SPPI criterion (loans and advances to banks and loans and advances to customers), and equity investments (securities and investments).

The gains realised from the disposal of non-current assets held for sale included in net gains/losses from securities and investments amounted to EUR 6 million in financial year 2023 (2022: EUR 11 million).

Net gains/losses from liabilities measured at fair value include the results from promissory note loans (liabilities to banks/liabilities to customers) and bonds and notes (certificated liabilities).

Net gains/losses from financial derivatives not qualifying for hedge accounting are mainly attributable to derivatives in economic hedges. Economic hedges are recognised by exercising the *fair value option* for the hedged items. The hedged items include, in particular, borrowings in the form of Certificated liabilities, Liabilities to banks and Liabilities to customers.

Furthermore, this line item includes gains/losses from bifurcated embedded derivatives resulting from hybrid contracts under financial liabilities. The net gains/losses from the valuation of the associated hedging derivatives are thus compensated for.

**Gross analysis of results from economically hedged borrowings:
Comparison of hedged items and hedging instruments**

	2023	2022
	EUR in millions	EUR in millions
Borrowings	-186	1,850
Hedging instruments	162	-1,826
Total (effectiveness of economic hedges)	-24	24

(27) Net gains/losses from disposal of financial assets at amortised cost

	2023	2022
	EUR in millions	EUR in millions
Expense from the disposal of financial assets at amortised cost	0	1
Total	0	-1

Expense from the disposal of financial assets at amortised cost resulted from the sale of loans on the secondary market.

(28) Net gains/losses from investments accounted for using the equity method

	2023	2022
	EUR in millions	EUR in millions
Net gains/losses from investments accounted for using the equity method	29	43

(29) Administrative expense

Analysis of Administrative expense

	2023	2022
	EUR in millions	EUR in millions
Wages and salaries	722	700
Social security contributions	108	99
Expenses for pension provision and other employee benefits	43	88
Personnel expense	873	887
Other administrative expenses	596	521
Depreciation, amortisation and impairment of property, plant and equipment and intangible assets	92	117
<i>of which impairments of rights of use arising from leases</i>	9	10
Non-personnel expense	688	638
Total	1,561	1,525

The Other administrative expenses item primarily includes costs for external service providers and office space and operating costs.

(30) Net other operating income or loss

Analysis of Net other operating income or loss

	2023	2022
	EUR in millions	EUR in millions
Other operating income	41	41
Other operating expense	117	50
Total	-76	-8

Other operating income primarily includes income from the reversal of other provisions in the amount of EUR 17 million (2022: EUR 17 million).

The Other operating expense item includes contributions payable by KfW IPEX-Bank to the restructuring fund for banks in the amount of EUR 15 million (2022: EUR 21 million). KfW is not obligated to contribute to the fund in accordance with Section 2 of the Restructuring Fund Act (*Restrukturierungsfondsgesetz – "RStrukFG"*).

In addition, the obligation to award grants under KfW's ERP promotional programmes, applicable for the first time in financial year 2023, was included in the amount of EUR 62 million in Other operating expense.

(31) Taxes on income

Analysis of Taxes on income by component

	2023	2022
	EUR in millions	EUR in millions
Current taxes on income	117	46
Deferred taxes	47	-47
Total	165	-1

Current taxes include taxes on income for group companies and non-deductible investment income tax recorded at KfW level.

The reconciliation presents the relationship between the calculated income tax expense for the financial year and reported taxes on income.

Income tax reconciliation

	2023	2022
	EUR in millions	EUR in millions
Profit/loss from operating activities (before taxes)	1,724	1,365
Group income tax rate	0%	0%
Calculated income tax expense in the financial year	0	0
Effects of tax rate differentials within the group	159	244
Effect of tax rate changes	0	0
Effects of previous year taxes recorded in the reporting year	0	1
Effects of non-deductible taxes on income	0	2
Effects of non-deductible business expenses	7	5
Effects of tax-free income	12	-20
Trade tax add-ons/reductions	0	4
Permanent accounting differences	-14	-113
Effects of changes in recognised deferred tax assets	1	-124
Reported taxes on income/expense	165	-1
Average effective tax rate	10%	0%

KfW's applicable income tax rate of 0%, on which the reconciliation is based, takes into account the tax status of KfW as a non-taxable public-law institution and the fact that this status predominantly determines profit/loss from operating activities.

The effects of tax rate differentials result from individual group companies being taxable and the related different tax rates. The tax rates continue to range from 0% to 32%.

OECD Pillar Two Model Rules

KfW Group falls within the scope of the OECD Pillar Two Model Rules. The 2023 adoption of the “Act to ensure global minimum taxation on corporate groups (*Minimum Tax Act [Mindeststeuergesetz – “MinStG”]*) in Germany, where the KfW Group parent company has its registered office, transposes the Pillar Two rules into German law. In accordance with the Minimum Tax Act, KfW Group must pay a top-up tax per country where KfW Group entities are based, in the amount of the difference between the GloBE effective tax rate (which is equal to GloBE tax expense or income divided by GloBE profit or loss) and the minimum tax rate of 15%. The law applies for financial years beginning on or after 31 December 2023. Accordingly, the group was not subject to any taxes in this respect in financial year 2023. The global scope of the Pillar Two rules is currently under review. It can be assumed that, in addition to Germany, the transposition into national law of the Pillar Two rules for business entities in the UK (in 2023) and Singapore (planned for 2025) will have to be taken into account. The data for calculating the country-specific GloBE effective tax rates cannot yet be determined. Therefore, the average effective tax rates in accordance with IAS 12.86 are used as an indicator in estimating the potential impact of the GloBE rules in the form of top-up taxes.

As a state-owned promotional bank, KfW is excluded from the scope of the Minimum Tax Act in accordance with Section 5 (1) in conjunction with Section 7 (30) of the Minimum Tax Act.

With regard to the subsidiaries included in KfW Group’s consolidated financial statements (including permanent establishments), profit/loss before taxes in accordance with IFRS of EUR 253 million and tax expense of EUR 162 million for 2023 are almost exclusively attributable to companies with registered offices in Germany. The average effective tax rate calculated in accordance with IAS 12.86 is 48% for consolidated subsidiaries with a profit before taxes and 13% for consolidated subsidiaries with a loss before taxes.

The profit/loss before taxes in accordance with IFRS and the tax expense for subsidiaries (including permanent establishments) with registered offices outside of Germany that are included in the consolidated financial statements, relate exclusively to IPEX Asia, based in Singapore, at EUR 1.3 million and EUR 0.3 million respectively, and to a permanent establishment of KfW IPEX-Bank in the UK, at EUR 7 million and EUR 2 million respectively. The average effective tax rate calculated in accordance with IAS 12.86 in these countries is 24% (Singapore) and 31% (UK).

Against this backdrop, top-up taxes under the Minimum Tax Act are not expected.

Specific adjustments provided for in the Pillar Two rules may result in the GloBE effective tax rate under Pillar Two differing from the average effective tax rate calculated in accordance with IAS 12.86. Due to the complexity of the application of the Pillar Two rules and the calculation of GloBE income, the quantitative effects of the adopted law cannot yet be reliably estimated. The potential impact is therefore currently being analysed as part of a project.

In accordance with the amendments to IAS 12 published in May 2023, the group has exercised the option of temporary exemption from the requirement to recognise deferred taxes in connection with implementation of the Pillar Two rules.

Segment reporting

(32) Segment reporting by business sector

In accordance with the provisions of IFRS 8, segment reporting follows the internal management reporting system, which is used by the group's main decision-makers to assess each segment's performance and to allocate resources to segments.

In accordance with the business sector structure for the group, the segments and their products and services can be presented as follows:

Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	<ul style="list-style-type: none"> – Start-up financing – Financing of general corporate investments and investments in innovation, energy and environmental protection – Education financing – Financing for housing construction, conversion and refurbishment
Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	<ul style="list-style-type: none"> – Financing of municipal and social infrastructure – Customised corporate financing with equity and debt capital – Customised financing of banks and promotional institutions of the federal states – Mandated transactions for energy supply (debt capital)
KfW Capital	<ul style="list-style-type: none"> – Investments in German and European venture capital and venture debt funds
Export and project finance	<ul style="list-style-type: none"> – Financing of German and European export activities – Financing of projects and investments which are of special interest for Germany and Europe
KfW Development Bank	<ul style="list-style-type: none"> – Promotion of developing countries and emerging economies on behalf of the Federal Government with budget funds and complementary market funds raised by KfW
DEG	<ul style="list-style-type: none"> – Financing provided by DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH in developing countries and emerging economies (private enterprise financing)
Financial markets	<ul style="list-style-type: none"> – Securities and money market investments – Holding arrangements for the Federal Republic of Germany – Transactions mandated by the Federal Government, loan granted to Greece – Funding
Head office	<ul style="list-style-type: none"> – Central interest rate and currency management – Strategic equity investments

The business sectors are measured on the basis of their contribution to consolidated profit. The individual items are based on the following methods:

- Net interest income (before promotional expense) comprises the net interest generated from lending business calculated on the basis of the market interest rate method¹⁾. The item also includes the imputed return on equity allocated according to the business sectors' planned regulatory capital. Head office also includes the treasury result, which largely comprises the income/loss from maturity transformation. The profit contribution from KfW funding²⁾ is allocated to the Financial markets business sector.
- Promotional expense included in Interest, Commission and Administrative expense and Other operating expense in the income statement is reported separately pursuant to the internal management report due to the special relevance of promotional expense as a management variable.

¹⁾ Funding at matching maturities using KfW's internal refinancing curve is assumed for the calculation of net interest income in this method.

²⁾ The difference between the realised refinancing rates and the maturity-matched refinancing rates calculated in-house.

Promotional expense is understood to mean certain expenses from the two business sectors *Mittelstandsbank & Private Kunden (SME Bank @ Private Clients)* and *Individualfinanzierung & Öffentliche Kunden (Customised Finance @ Public Clients)* that have a positive impact on the achievement of KfW's promotional objectives. Promotional expense primarily consists of additions of the interest rate reductions accounted for at present value³⁾ from new commitments as well as from the compounding effect. Additional promotional components are the expenses for upfront fees paid to sales partners (included in Commission expense), for innovative digital promotional approaches (included in Commission and Administrative expense), for available and product-related marketing and sales measures (included in Administrative expense), and, until the end of 2022, for promotional grants awarded as a supplement to the lending business (included in Other operating expense). KfW also awarded promotional grants under ERP promotion (other operating expense) for the first time in 2023.

- The allocation of Administrative expense (before promotional expense) is based on the results from activity-based accounting by cost centres⁴⁾. Administrative expense (before promotional expense) includes depreciation on property, plant and equipment and amortisation of intangible assets and rights of use.
- In the Risk provisions for lending business item, net impairment charges, direct write-offs, recoveries on loans written off and the net gains/losses from non-substantial contractual modifications are distributed among the segments according to the underlying loan.
- The valuation result (before promotional expense) comprises the net gains/losses from hedge accounting, the net gains/losses from other financial instruments at fair value, net gains/losses from risk provisions in the securities business, the net gains/losses from the disposal of financial instruments measured at amortised cost, the net gains/losses from investments accounted for using the equity method and net other operating income (before promotional expense).
- When taxes on income are allocated to the business sectors (excluding the Head office), only the current taxes on income are taken into account. Deferred taxes are allocated to the Head office.
- In accordance with the internal management reporting system, segment assets are not reported as they are used neither to assess each segment's performance nor to allocate resources to segments.
- The presentation of segment income and expense is based on consolidated figures. Administrative and commission expense as well as commission income and other operating income resulting from service relationships within KfW Group are adjusted in segment reporting. Any remaining negligible consolidation effects are reported in the reconciliation/consolidation column.

³⁾ See Note 12 for details on KfW's interest rate reductions in the promotional lending business.

⁴⁾ The costs incurred in the organisational units are largely allocated to the products by means of core services.

Segment reporting by business sector for financial year 2023

	Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	Individualfinanzi- erung & Öffent- liche Kunden (Customised Finance & Public Clients)	KfW Capital ¹⁾	Export and project finance ¹⁾	KfW Development Bank ¹⁾
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Volume of new commitments	39,117	35,852	2,129	24,152	9,040
Net interest income (before promotional expense)	578	165	1	915	202
Net commission income (before promotional expense)	253	37	12	42	260
Administrative expense (before promotional expense)	422	81	21	298	418
Operating result before valuation (before promotional expense)	409	120	-7	660	44
Risk provisions for lending business	49	5	0	-11	15
Valuation result (before promotional expense)	0	-9	-92	-23	70
Profit/loss from operating activities (before promotional expense)	458	116	-99	626	129
Promotional expense	358	14	0	0	0
Taxes on income	0	0	1	86	0
Consolidated profit	100	102	-100	540	129

	DEG	Financial markets	Head office	Reconciliation/ consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Volume of new commitments	1,869	480	0	-1,327	111,312
Net interest income (before promotional expense)	155	447	275	0	2,738
Net commission income (before promotional expense)	3	-5	3	0	606
Administrative expense (before promotional expense)	144	94	70	0	1,547
Operating result before valuation (before promotional expense)	14	349	209	0	1,797
Risk provisions for lending business	110	-3	0	0	165
Valuation result (before promotional expense)	-42	15	215	0	134
Profit/loss from operating activities (before promotional expense)	82	360	423	0	2,095
Promotional expense	0	0	0	0	371
Taxes on income	31	0	48	0	165
Consolidated profit	51	360	376	0	1,559

¹⁾ The valuation result of the business sectors includes the following net gains/losses from investments accounted for using the equity method:
KfW Capital EUR 0.7 million, Export and project finance EUR 18.2 million and KfW Development Bank EUR 10.2 million.

Segment reporting by business sector for financial year 2022

	Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	Individualfinanzierung & Öffentliche Kunden ¹⁾ (Customised Finance & Public Clients)	KfW Capital ¹⁾	Export and project finance ¹⁾	KfW Development Bank ¹⁾
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Volume of new commitments	64,839	69,970	1,259	18,120	10,931
Net interest income (before promotional expense)	465	165	0	781	175
Net commission income (before promotional expense)	307	42	1	30	249
Administrative expense (before promotional expense)	432	84	15	282	403
Operating result before valuation (before promotional expense)	340	124	-14	529	21
Risk provisions for lending business	-37	2	0	24	-4
Valuation result (before promotional expense)	0	40	34	52	-59
Profit/loss from operating activities (before promotional expense)	303	166	20	605	-43
Promotional expense	278	27	0	0	0
Taxes on income	0	0	0	28	0
Consolidated profit	25	139	20	578	-43

	DEG	Financial markets	Head office	Reconciliation/ consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Volume of new commitments	1,644	415	0	-241	166,938
Net interest income (before promotional expense)	242	497	90	0	2,416
Net commission income (before promotional expense)	-1	-4	4	0	629
Administrative expense (before promotional expense)	139	97	57	0	1,509
Operating result before valuation (before promotional expense)	103	396	37	0	1,536
Risk provisions for lending business	-113	5	2	0	-122
Valuation result (before promotional expense)	26	8	156	-1	256
Profit/loss from operating activities (before promotional expense)	16	409	195	-1	1,669
Promotional expense	0	0	0	0	305
Taxes on income	16	0	-44	0	-1
Consolidated profit	0	409	239	-1	1,365

¹⁾ The valuation result of the business sectors includes the following net gains/losses from investments accounted for using the equity method: KfW Capital EUR 6.6 million, Export and project finance EUR 36.4 million and KfW Development Bank EUR 0.3 million.

The reconciliation/consolidation column includes all adjustments that were necessary to reconcile segment information with the aggregated information for the group. The consolidation effects reported for “Volume of new commitments” relate to commitments for programme loans made by Mittelstandsbank & Private Kunden (*SME Bank @ Private Clients*) and Individualfinanzierung & Öffentliche Kunden (*Customised Finance @ Public Clients*) for which KfW IPEX-Bank acts as on-lending bank. The other amounts in this column result from minimal consolidation effects.

(33) Segment reporting by region

Net interest and commission income are allocated on the basis of the customers’ geographical location. The imputed return on equity included in net interest income, the profit contribution from KfW funding and the treasury result are allocated to Germany. KfW receives commission income from the Federal Government for supporting developing countries and emerging economies using budget funds of the Federal Government. These funds are allocated according to the region of the country receiving the investment.

Property, plant and equipment and intangible assets are not reported according to region because, apart from immaterial amounts, these assets relate to Germany.

Segment reporting by region for financial year 2023

	Germany	Europe (excl. Germany)	Rest of the world	Reconciliation/ consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Net interest income	1,360	457	639	0	2,456
Net commission income	297	47	249	0	593
Segment income	1,657	504	888	0	3,049

Segment reporting by region for financial year 2022

	Germany	Europe (excl. Germany)	Rest of the world	Reconciliation/ consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Net interest income	1,078	427	644	0	2,148
Net commission income	349	39	229	0	617
Segment income	1,427	465	873	0	2,766

The reconciliation/consolidation column includes all adjustments that were necessary to reconcile segment information with the aggregated information for the group. The amounts in this column result solely from minimal consolidation effects.

Notes to the statement of financial position

(34) Cash reserves

Analysis of Cash reserves

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Cash	0	0
Balances with central banks	47,430	51,848
Total	47,431	51,848

(35) Financial assets at amortised cost

Analysis of Financial assets at amortised cost by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Loans and advances to banks		
Money market transactions	14,353	5,211
Loans and advances	299,388	304,194
Other receivables	10,901	4,762
Loans and advances to customers		
Money market transactions	270	406
Loans and advances	140,705	151,780
Promissory note loans	1,611	1,018
Other receivables	1,742	1,273
Securities and investments		
Bonds and other fixed-income securities	36,065	33,733
Total gross	505,035	502,378
Less risk provisions for		
Loans and advances to banks	-167	-248
Loans and advances to customers	-1,685	-1,853
Securities and investments	-8	-12
Total net	503,175	500,265

The receivables from reverse repurchase agreements (reverse “repos”) are included in Loans and advances to banks – Other receivables.

Receivables from securities lending transactions with the German Finance Agency were included in Loans and advances to customers – Other receivables in the previous year.

The cash collateral pledged of EUR 5,260 million (31 Dec. 2022: EUR 5,154 million) is attributable to cash collateral on derivatives and included in Loans and advances to banks – Other receivables and Loans and advances to customers – Other receivables.

Analysis of Loans and advances by underwriting liability type

	Loans and advances to banks		Loans and advances to customers	
	31 Dec. 2023	31 Dec. 2022	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Direct loans	70,221	70,173	130,092	141,272
On-lent customer loans with full underwriting borne by the on-lending commercial bank	209,573	208,729	0	0
On-lent customer loans with partial underwriting borne by the on-lending commercial bank	20,001	25,617	0	0
On-lent customer loans without underwriting borne by the on-lending commercial bank	0	0	6,650	8,137
Direct customer loans with full underwriting borne by the on-lending commercial bank	0	0	2,947	1,218
Direct and on-lent subordinated loans	356	318	1,054	1,191
Adjustment to the carrying amount due to the interest rate being below the market rate for promotional loans paid out with additional promotional funds in the form of interest rate reductions with an impact on KfW's earnings position.	-762	-644	-37	-39
Total	299,388	304,194	140,705	151,780

Direct loans to banks include in particular global loans granted as part of financing for domestic housing construction and SMEs.

Direct loans to customers include in particular loans granted under export and project financing, municipal financing and education financing. The item also includes loans connected with certain transactions mandated by the Federal Government in accordance with the KfW Law.

(36) Gross carrying amounts

Development of gross carrying amounts of financial assets at amortised cost – Loans and advances to banks

	Financial year 2023				Financial year 2022			
	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions
As of 1 Jan.	310,314	2,836	1,018	314,168	305,962	1,880	648	308,489
Transfer from stage 2 and stage 3 to stage 1	715	-714	-1	0	451	-451	0	0
Transfer from stage 1 and stage 3 to stage 2	-986	1,001	-16	0	-1,863	1,872	-9	0
Transfer from stage 1 and stage 2 to stage 3	-633	-260	893	0	-646	-48	694	0
Additions – New business and increased utilisation	108,196	54	12	108,263	83,945	234	22	84,202
Disposals	-93,852	-821	-756	-95,429	-77,402	-654	-411	-78,466
<i>of which financial assets written off</i>	-93,852	-821	-743	-95,416	-77,402	-654	-403	-78,459
<i>of which default on receivables</i>	0	0	-13	-13	0	0	-7	-7
Changes from non- substantial contractual modification	0	1	0	1	0	0	0	0
Exchange rate and other changes	-2,339	1	-23	-2,361	-133	2	75	-57
As of 31 Dec.	321,416	2,098	1,128	324,642	310,314	2,836	1,018	314,168

Development of gross carrying amounts of financial assets at amortised cost – Loans and advances to customers

	Financial year 2023				Financial year 2022			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan.	140,311	8,827	5,339	154,478	101,598	24,773	4,531	130,902
Transfer from stage 2 and stage 3 to stage 1	3,819	-3,819	0	0	19,351	-19,351	0	0
Transfer from stage 1 and stage 3 to stage 2	-2,712	2,799	-87	0	-4,372	4,651	-279	0
Transfer from stage 1 and stage 2 to stage 3	-724	-554	1,278	0	-2,175	-310	2,485	0
Additions – New business and increased utilisation	33,599	474	63	34,137	54,423	415	380	55,218
Disposals	-41,467	-2,401	-1,808	-45,676	-30,847	-1,921	-2,320	-35,087
<i>of which financial assets written off</i>	-41,467	-2,400	-1,664	-45,531	-30,842	-1,920	-2,243	-35,006
<i>of which default on receivables</i>	-1	0	-144	-145	-5	0	-77	-82
Changes from non-substantial contractual modification	-1	0	-2	-4	0	1	1	3
Exchange rate and other changes	1,544	-74	-76	1,394	2,333	568	541	3,442
As of 31 Dec.	134,370	5,252	4,707	144,328	140,311	8,827	5,339	154,478

Development of gross carrying amounts of financial assets at amortised cost – Securities and investments

	Financial year 2023				Financial year 2022			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan.	33,725	8	0	33,733	35,784	0	0	35,784
Transfer from stage 2 and stage 3 to stage 1	7	-7	0	0	0	0	0	0
Transfer from stage 1 and stage 3 to stage 2	-117	117	0	0	-8	8	0	0
Additions – New business and increased utilisation	25,942	0	0	25,942	26,530	0	0	26,530
Disposals	-24,653	-51	0	-24,704	-25,914	-1	0	-25,915
<i>of which financial assets written off</i>	-24,653	-51	0	-24,704	-25,914	-1	0	-25,915
Exchange rate and other changes	1,096	-2	0	1,093	-2,666	0	0	-2,666
As of 31 Dec.	36,001	64	0	36,065	33,725	8	0	33,733

Development of gross carrying amounts of off-balance sheet lending transactions

	Financial year 2023				Financial year 2022			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan.	129,693	2,777	532	133,002	109,184	4,725	312	114,220
Transfer from stage 2 and stage 3 to stage 1	40	-40	0	0	86	-86	0	0
Transfer from stage 1 and stage 3 to stage 2	-63	64	-1	0	-218	218	0	0
Transfer from stage 1 and stage 2 to stage 3	-5	-1	6	0	-15	-168	183	0
Additions – New business and increased utilisation	66,223	147	134	66,503	67,791	336	156	68,283
Disposals	-58,633	-1,097	-211	-59,941	-47,237	-2,239	-116	-49,592
Exchange rate and other changes	-28	-3	-5	-36	104	-9	-3	91
As of 31 Dec.	137,227	1,847	455	139,528	129,693	2,777	532	133,002

The gross carrying amount of financial assets for which risk provisioning at the time of modification was assigned to stages 2 or 3 and was transferred back to stage 1 during the reporting period amounted to EUR 1,083 million as of the reporting date (31 Dec. 2022: EUR 3,639 million).

(37) Risk provisions

Development of risk provisions for financial assets at amortised cost – Loans and advances to banks

	Financial year 2023				Financial year 2022			
	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions
As of 1 Jan.	81	40	128	248	104	33	101	238
Transfer from stage 2 and stage 3 to stage 1	13	-13	0	0	6	-6	0	0
Transfer from stage 1 and stage 3 to stage 2	-5	6	-1	0	-12	12	-1	0
Transfer from stage 1 and stage 2 to stage 3	0	-3	4	0	0	-2	2	0
Additions	22	20	11	54	37	30	30	98
Utilisation	0	0	-9	-9	0	0	-5	-5
Reversals	-54	-17	-11	-83	-57	-27	-9	-94
Net present value effect	0	0	5	5	0	0	5	5
Exchange rate and other changes	-4	0	-43	-48	3	0	3	6
As of 31 Dec.	52	32	84	167	81	40	128	248

Development of risk provisions for financial assets at amortised cost – Loans and advances to customers

	Financial year 2023				Financial year 2022			
	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions
As of 1 Jan.	237	406	1,211	1,853	192	275	1,238	1,705
Transfer from stage 2 and stage 3 to stage 1	128	-127	0	0	78	-78	0	0
Transfer from stage 1 and stage 3 to stage 2	-34	54	-20	0	-37	87	-49	0
Transfer from stage 1 and stage 2 to stage 3	-6	-81	87	0	-13	-61	74	0
Additions	132	243	330	705	214	336	384	934
Utilisation	0	0	-197	-197	0	0	-135	-135
Reversals	-296	-190	-291	-776	-201	-156	-455	-812
Net present value effect	0	0	89	89	0	0	119	119
Exchange rate and other changes	2	-4	13	10	3	4	35	42
As of 31 Dec.	162	300	1,223	1,685	237	406	1,211	1,853

Development of risk provisions for financial assets at amortised cost – Securities and investments

	Financial year 2023				Financial year 2022			
	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions
As of 1 Jan.	11	1	0	12	10	0	0	10
Transfer from stage 2 and stage 3 to stage 1	1	-1	0	0	0	0	0	0
Additions	4	1	0	4	8	2	0	10
Reversals	-8	0	0	-8	-7	-1	0	-8
As of 31 Dec.	8	0	0	8	11	1	0	12

Development of Risk provisions for lending business (off-balance sheet lending transactions)

	Financial year 2023				Financial year 2022			
	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions	Stage 1 EUR in millions	Stage 2 EUR in millions	Stage 3 EUR in millions	Total EUR in millions
As of 1 Jan.	42	26	47	115	32	48	15	94
Transfer from stage 2 and stage 3 to stage 1	9	-9	0	0	4	-4	0	0
Transfer from stage 1 and stage 3 to stage 2	-2	2	0	0	1	0	0	0
Transfer from stage 1 and stage 2 to stage 3	0	-3	3	0	0	-29	29	0
Additions	44	31	40	115	80	39	12	131
Reversals	-68	-31	-39	-138	-76	-26	-9	-110
Exchange rate and other changes	-1	0	-2	-2	0	-1	0	0
As of 31 Dec.	24	16	50	90	42	26	47	115

Provisions for losses on loans and advances also include money market investments and reverse repos.

In the reporting year, EUR 95 million (2022: EUR 124 million) in interest income was not collected for impaired loans and advances.

The contractual balance outstanding of financial assets that were written off during the reporting period and that are still subject to enforcement measures amounted to EUR 76 million as of the reporting date. (31 Dec. 2022: EUR 63 million).

(38) Financial assets at fair value

Analysis of Financial assets at fair value by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Loans and advances to banks – FVM		
Loans and advances	0	0
Other receivables	41	38
Loans and advances to customers – FVM		
Loans and advances	9,927	9,681
Other receivables	1	0
Securities and investments – FVM		
Equity investments	4,418	4,342
Shares in non-consolidated subsidiaries	90	80
Other derivatives – FVM		
Interest-related derivatives	1,630	1,787
Cross-currency derivatives	692	695
Total	16,799	16,624

Cross-currency swaps are presented under Cross-currency derivatives.

Other derivatives include derivatives with positive fair values of EUR 106 million (31 Dec. 2022: EUR 163 million) attributable to embedded derivatives that are bifurcated.

(39) Value adjustments from macro fair value hedge accounting

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Value adjustments to assets under macro fair value hedge accounting	-14,771	-25,859

The fair values attributable to hedged risks in the hedged portfolios in the at *amortised cost* measurement category are included in this item.

(40) Derivatives designated for hedge accounting

Analysis of derivatives with positive fair values designated for hedge accounting by type of hedging relationship

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Micro fair value hedge accounting	3,980	6,699
Macro fair value hedge accounting	1,463	2,306
Total	5,443	9,005

Analysis of derivatives with positive fair values designated for hedge accounting by type of hedging instrument

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Interest-related derivatives	2,326	2,817
Cross-currency derivatives	3,118	6,188
Total	5,443	9,005

Only Interest-related derivatives are designated for macro fair value hedge accounting. Cross-currency swaps are presented under Cross-currency derivatives.

(41) Investments accounted for using the equity method

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Investments accounted for using the equity method	626	642
Total	626	642

The note regarding “Disclosures on shareholdings” includes a list of Investments accounted for using the equity method.

(42) Non-current assets held for sale

This item from the statement of financial position contains equity investments of DEG with a fair value of EUR 78 million (31 Dec. 2022: EUR 64 million) in companies in Asia, Africa and Latin America, which meet the criteria under IFRS 5 as “non-current assets held for sale”, and are therefore to be reported separately. These equity investments are recognised in the business sector DEG.

Disposal of the equity investments within the next twelve months is highly likely.

It was not possible in 2023 to sell, as planned, four equity investments recognised as assets held for sale in the consolidated financial statements as of 31 December 2022 (31 Dec. 2021: four equity investments). This was due to the deteriorated market environment resulting from the Russia-Ukraine war and the macroeconomic situation. This decreased probability of sale resulted in an accounting reclassification, but had no impact on the earnings position.

(43) Property, plant and equipment

Analysis of Property, plant and equipment by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Land and buildings	828	823
Plant and equipment	67	60
Rights of use arising from leases	31	39
Other property, plant and equipment	4	7
Total	929	929

Additions to rights of use arising from leases amounted to EUR 1 million (2022: EUR 0 million). Payments in advance and assets under construction are presented in Other property, plant and equipment.

Development of Property, plant and equipment in financial year 2023

	Acquisition/ production cost	Accumulated amortisation, impairment and reversal of impairment losses	Net carrying amount
	EUR in millions	EUR in millions	EUR in millions
Carrying amount as of 1 Jan. 2023	1,496	-568	929
Additions/reversals of impairment losses	58	0	58
Disposals	-22	20	-2
Amortisation	0	-55	-55
Impairment losses	0	-1	-1
Carrying amount as of 31 Dec. 2023	1,533	-604	929

Development of Property, plant and equipment in financial year 2022

	Acquisition/ production cost	Accumulated amortisation, impairment and reversal of impairment losses	Net carrying amount
	EUR in millions	EUR in millions	EUR in millions
Carrying amount as of 1 Jan. 2022	1,513	-541	971
Additions/reversals of impairment losses	26	0	26
Disposals	-42	32	-10
Amortisation	0	-58	-58
Carrying amount as of 31 Dec. 2022	1,496	-568	929

(44) Intangible assets

Analysis of Intangible assets by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Software	75	95
Purchased software	31	37
Internally generated software	44	58
Other intangible assets	7	5
Total	82	100

Other intangible assets include, in particular, software under development.

Development of Intangible assets in financial year 2023

	Acquisition/ production cost	Accumulated amortisation, impairment and reversal of impairment losses	Net carrying amount
	EUR in millions	EUR in millions	EUR in millions
Carrying amount as of 1 Jan. 2023	457	-357	100
Additions/reversals of impairment losses	18	0	18
Disposals	-2	2	0
Amortisation	0	-36	-36
Impairment losses	0	0	0
Carrying amount as of 31 Dec. 2023	473	-391	82

Development of Intangible assets in financial year 2022

	Acquisition/ production cost	Accumulated amortisation, impairment and reversal of impairment losses	Net carrying amount
	EUR in millions	EUR in millions	EUR in millions
Carrying amount as of 1 Jan. 2022	446	-302	144
Additions/reversals of impairment losses	14	0	14
Disposals	-3	3	0
Amortisation	0	-58	-58
Impairment losses	0	0	0
Carrying amount as of 31 Dec. 2022	457	-357	100

(45) Income tax assets

Analysis of Income tax assets

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Current income tax assets	15	22
Deferred income tax assets	161	218
Total	176	239

Current income tax assets result from creditable taxes (investment income tax/solidarity surcharge) and tax receivables from advance tax payments of the taxable group subsidiaries during financial year 2023.

Deferred income tax assets mostly result from valuation differences relating to the statement of financial position items listed below. Deferred tax assets relating to loss carryforwards are based on the business plan for 2024–2027. As of 31 December 2023, the volume of deferred tax assets not recognised was EUR 4 million (31 Dec. 2022: EUR 3 million) relating to loss carryforwards, and EUR 0 million (31 Dec. 2022: EUR 0 million) relating to accounting issues.

Further information on the amount recognised directly in equity as deferred taxes under Revaluation reserves can be found in the note “Equity”.

Composition of deferred tax assets by statement of financial position item

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Financial assets at amortised cost	76	109
Financial assets at fair value	3	4
Financial liabilities at amortised cost	1	0
Financial liabilities at fair value	2	2
Provisions	42	37
Tax loss carryforwards	41	76
Subtotal	165	228
Offset against deferred tax liabilities	4	10
Total	161	218

(46) Other assets

Analysis of Other assets

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Other assets and receivables	723	706
Prepaid expenses and deferred charges	49	65
Total	772	771

Other assets and receivables includes primarily the receivables from the Federal Agency for Special Tasks Associated with Unification (*Bundesanstalt für vereinigungsbedingte Sonderaufgaben – “BvS”*), which are offset in equal amount by provisions arising from the assumption of the operations of the State Insurance Company of the German Democratic Republic in liquidation (*Staatliche Versicherung der Deutschen Demokratischen Republik in Abwicklung – “SInA”*, an institution under public law).

Prepaid expenses and deferred charges include financial assets resulting from contractual rights (“contract assets” in accordance with IFRS 15). These developed as follows:

Development of assets from contractual rights

	2023	2022
	EUR in millions	EUR in millions
As of 1 Jan.	0	2
Additions	0	0
Disposals	0	-2
As of 31 Dec.	0	0

(47) Financial liabilities at amortised cost

Analysis of Financial liabilities at amortised cost by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Liabilities to banks		
Money market transactions	2,104	4,453
Promissory note loans	1,123	1,456
Other financial liabilities	2,549	5,545
Liabilities to customers		
Money market transactions	975	299
Promissory note loans	38,027	51,038
Other financial liabilities	9,288	11,619
Certificated liabilities		
Money market issues	37,694	39,058
Bonds and notes	407,940	379,111
Total	499,700	492,579

Liabilities from cash collateral received are included in Other financial liabilities. These are attributable to cash collateral on derivatives in the amount of EUR 1,549 million (31 Dec. 2022: EUR 3,922 million), and to cash collateral on other transactions in the amount of EUR 1,324 million (31 Dec. 2022: EUR 1,472 million).

New securities (money market issues, bonds and notes) under sub-item certificated liabilities, with a nominal volume of EUR 201.4 billion and which are to be measured at amortised cost, were issued during the current financial year (2022: EUR 268.2 billion). The volume of repayments due to maturity during the same period amounted to EUR 181.4 billion (nominal) (2022: EUR 262.9 billion) and the volume of early repurchases to EUR 0.4 billion (nominal) (2022: EUR 0.1 billion).

Liabilities include liabilities from repurchase agreements and securities lending transactions under “Other financial liabilities”.

(48) Financial liabilities at fair value

Analysis of Financial liabilities at fair value by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Liabilities to banks – FVD		
Promissory note loans	221	208
Liabilities to customers – FVD		
Promissory note loans	818	812
Certificated liabilities – FVD		
Bonds and notes	6,613	6,699
Other derivatives – FVM		
Interest-related derivatives	1,585	2,018
Cross-currency derivatives	1,129	1,664
Total	10,365	11,401

As in the previous year, there were no new issues in the current financial year under sub-item certificated liabilities to be measured at fair value. The volume of repayments due to maturity during the same period amounted to EUR 0.3 billion (nominal) (2022: EUR 0.1 billion) and the volume of early repurchases to EUR 0.0 billion (nominal) (2022: EUR 0.0 billion).

Cross-currency swaps are presented under Cross-currency derivatives.

Other derivatives include derivatives with negative fair values of EUR 6 million (31 Dec. 2022: EUR 5 million) attributable to embedded derivatives that are bifurcated.

(49) Value adjustments from macro fair value hedge accounting

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Value adjustments to liabilities under macro fair value hedge accounting	-1	18

The fair values attributable to hedged risks in the hedged portfolios in the at amortised cost measurement category are included in this item.

(50) Derivatives designated for hedge accounting

Analysis of derivatives with negative fair values designated for hedge accounting by type of hedging relationship

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Micro fair value hedge accounting	8,188	10,600
Macro fair value hedge accounting	1,112	219
Total	9,300	10,819

Analysis of derivatives with negative fair values designated for hedge accounting by type of hedging instrument

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Interest-related derivatives	5,834	7,252
Cross-currency derivatives	3,466	3,567
Total	9,300	10,819

(51) Risk provisions

Analysis of Provisions by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Provisions for pensions and similar commitments	1,844	1,683
Provisions for credit risks	90	115
Other provisions	877	873
Total	2,811	2,672

Development of Provisions for pensions and similar commitments in financial year 2023

	Defined benefit obligations	Early retirement	Partial retirement	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2023	1,638	42	3	1,683
Additions	104	1	1	105
<i>Current service cost</i>	40	0	1	41
<i>Interest cost</i>	64	0	0	64
Actuarial gains and losses	121	0	0	121
<i>Changes in demographic assumptions</i>	0	0	0	0
<i>Changes in financial assumptions</i>	124	0	0	124
<i>Changes in experience adjustments</i>	-3	0	0	-3
Utilisation	-60	-9	-2	-70
Contributions by members (recognised in equity)	6	0	0	6
As of 31 Dec. 2023	1,809	33	2	1,844

The average expected residual term of the defined-benefit pension obligations is 16.4 years as of 31 December 2023 (31 Dec. 2022: 15.9 years).

Development of Provisions for pensions and similar commitments in financial year 2022

	Defined benefit obligations	Early retirement	Partial retirement	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2022	2,496	53	7	2,556
Additions	118	-4	1	115
<i>Current service cost</i>	85	0	1	86
<i>Interest cost</i>	34	-4	0	29
Actuarial gains and losses	-922	0	0	-922
<i>Changes in demographic assumptions</i>	-2	0	0	-2
<i>Changes in financial assumptions</i>	-925	0	0	-925
<i>Changes in experience adjustments</i>	4	0	0	4
Utilisation	-60	-7	-4	-71
Contributions by members (recognised in equity)	5	0	0	5
As of 31 Dec. 2022	1,638	42	3	1,683

Provisions for pensions and similar commitments are calculated on the basis of the 2018 G Heubeck actuarial tables and the following other actuarial assumptions:

Actuarial assumptions in % p.a.

	31 Dec. 2023	31 Dec. 2022
Technical discount rate	3.41	3.89
Rate of salary increases	2.20	2.20
Rate of pension increases	2.50	2.50
Rate of staff turnover	3.17	3.17

The technical discount rate as of 31 December 2023 reflects an adjustment to the average residual term of the defined benefit pension obligations translating into an adjustment to the average capital commitment period used.

Sensitivity of defined benefit pension obligations as of 31 December 2023

	Difference	Change in defined benefit obligations	Difference	Change in defined benefit obligations
		EUR in millions		EUR in millions
Life expectancy	+1 year	71	-1 year	-73
Technical discount rate	+0.25%	-69	-0.25%	74
Rate of salary increases	+0.50%	13	-0.50%	-12
Rate of pension increases	+0.50%	102	-0.50%	-57
Rate of staff turnover	+1.00%	-1	-1.00%	1

Sensitivity of defined benefit pension obligations as of 31 December 2022

	Difference	Change in defined benefit obligations	Difference	Change in defined benefit obligations
		EUR in millions		EUR in millions
Life expectancy	+1 year	60	-1 year	-62
Technical discount rate	+0.25%	-61	-0.25%	65
Rate of salary increases	+0.50%	7	-0.50%	-7
Rate of pension increases	+0.50%	88	-0.50%	-52
Rate of staff turnover	+1.00%	-1	-1.00%	1

Development of Risk provisions for lending business

For the development of Risk provisions for lending business (off-balance sheet transactions) see the note regarding "Risk provisions".

Development of Other provisions in financial year 2023

	Obligations to employees	Other provisions	Total
	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2023	32	842	873
Additions	8	141	148
Utilisation	-4	-123	-127
Reversals	0	-18	-18
As of 31 Dec. 2023	35	842	877

The Obligations to employees column shows other long-term employee benefits including provisions for service anniversaries. Corresponding actuarial reports have been prepared for these obligations.

An Other provision item in the amount of EUR 57 million (31 Dec. 2022: EUR 95 million) is reported due to the interest rate being below the market rate for irrevocable promotional loan commitments with additional promotional funds in the form of interest rate reductions impacting KfW's earnings position. Changes to existing provisions are presented as net additions or, in the case of a decline, as a transfer via the adjustments to the carrying amounts of already disbursed promotional loans recognised on the assets side under Financial assets at amortised cost – Loans and advances to banks or customers.

Other provisions also comprise obligations arising from the assumption of the operations of the State Insurance Company of the German Democratic Republic in liquidation (*Staatliche Versicherung der Deutschen Demokratischen Republik in Abwicklung – "SInA"*, an institution under public law), which are offset by receivables in the same amount from the Federal Agency for Special Tasks Associated with Unification (*Bundesanstalt für vereinigungsbedingte Sonderaufgaben – "BvS"*) recognised in Other assets. Other provisions also include provisions for legal risks offset by receivables from the Federal Government in the same amount.

Development of Other provisions in financial year 2022

	Obligations to employees	Other provisions	Total
	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2022	36	890	926
Additions	3	65	68
Utilisation	-4	-95	-99
Reversals	-4	-18	-22
As of 31 Dec. 2022	32	842	873

(52) Income tax liabilities

Analysis of Income tax liabilities

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Current income tax liabilities	82	19
Deferred income tax liabilities	26	42
Total	107	61

Current income tax liabilities as of 31 December 2023 primarily consist of tax provisions at the level of taxable companies included in the group.

Deferred income tax liabilities mostly resulted from valuation differences relating to the statement of financial position items listed below.

Composition of deferred tax liabilities by statement of financial position item

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Financial assets at fair value – Other derivatives	1	8
Financial assets at amortised cost	1	0
Financial assets at fair value – Securities and investments	23	40 ¹⁾
Investments accounted for using the equity method	4	3
Other statement of financial position items	1	1
Subtotal	30	52
Offset against deferred tax assets	4	10
Total	26	42

¹⁾ From financial year 2023, the deferred tax liabilities from shares in companies accounted for using the equity method included in the previous year and the corresponding prior-year figure of EUR 3 million will be reported separately.

(53) Other liabilities

Analysis of Other liabilities

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Other financial liabilities	312	413
Deferred income	39	43
Lease liabilities	34	45
Total	386	501

Deferred income contains liabilities resulting from contractual obligations (“contract liabilities” in accordance with IFRS 15). These developed as follows:

Development of liabilities from contractual obligations

	2023	2022
	EUR in millions	EUR in millions
As of 1 Jan.	38	41
Additions	15	13
Disposals	-16	-16
As of 31 Dec.	37	38

(54) Equity

Analysis of Equity

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Subscribed capital	3,750	3,750
less uncalled outstanding contributions	-450	-450
Paid-in subscribed capital	3,300	3,300
Capital reserve	8,447	8,447
Reserve from the ERP Special Fund	1,191	1,191
Retained earnings	25,150	23,391
<i>Statutory reserve under Article 10 (2) KfW Law</i>	1,875	1,875
<i>Special reserve under Article 10 (3) KfW Law</i>	17,117	15,781
<i>Special reserve less the special loss account from provisioning pursuant to Section 17 (4) of the D-Mark Balance Sheet Law</i>	21	21
<i>Other retained earnings</i>	6,137	5,714
Fund for general banking risks	0	200
Revaluation reserves	-15	50
<i>Valuation result from the change in own credit risk of liabilities designated at fair value through profit or loss</i>	55	6
<i>Actuarial gains and losses from defined-benefit pension obligations (after tax)</i>	-70	44
Total	38,073	36,579

The Federal Government owns 80% of KfW's share capital, the German federal states 20%. In accordance with Article 1a of the KfW Law, the Federal Republic of Germany is liable for certain liabilities of KfW. There is no profit distribution in accordance with Article 10 (1) of the KfW Law. KfW's net income amounting to EUR 1,336 million (2022: EUR 1,026 million) was used to increase the special reserve under Article 10 (3) KfW Law.

Equity forms the basis for the capital available for covering risks, which is matched against the capital requirements derived from internal management.

For information concerning Equity in relation to risk-bearing capacity, see the risk report in the combined management report.

The revaluation reserves developed as follows:

Development of revaluation reserves

	Valuation result from the change in own credit risk of liabilities designated at fair value through profit or loss	Actuarial gains and losses from defined benefit pension obligations	Effects of deferred taxes	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2022	-131	-870	44	-957
Consolidated comprehensive income	137	922	-53	1,007
<i>Other comprehensive income</i>	137	922	-53	1,007
As of 31 Dec. 2022	6	52	-9	50
Consolidated comprehensive income	49	-121	7	-65
<i>Other comprehensive income</i>	49	-121	7	-65
As of 31 Dec. 2023	55	-68	-2	-15

Notes to financial instruments

The different IFRS 9 measurement categories are abbreviated as follows in the Notes to financial instruments:

ACO	=	Financial instruments measured at amortised cost
FVM	=	Financial instruments measured at fair value
FVD	=	Financial instruments designated at fair value

(55) Gains and losses from financial instruments by measurement category

The following tables show the results from financial instruments included in the different statement of comprehensive income items presented by measurement category. The result from foreign currency translation is not included.

Gains and losses from financial instruments by measurement category in financial year 2023

	Financial assets at amortised cost	Financial liabilities at amortised cost	Financial assets at fair value – FVM	Financial liabilities at fair value		Derivatives designated for hedge accounting	Total
				FVM	FVD		
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Interest income	10,837 ¹⁾	0	725	374	0	6,464	18,399
Interest expense	-284	-7,599	-64	-354	-347	-7,231	-15,878
Net gains/losses from risk provisions	169	0	0	0	0	0	169
Commission income	9	0	0	0	0	0	9
Commission expense	-10	-5	0	0	0	0	-15
Net gains/losses from hedge accounting	12,277	-13,793	0	0	0	1,807	291
Net gains/losses from other financial instruments at fair value through profit or loss	0	0	-311	304	-186	0	-194
Net gains/losses from disposal of financial assets at amortised cost	0	0	0	0	0	0	0
Net other operating income	0	6	0	0	0	0	6
Change in revaluation reserves	0	0	0	0	49	0	49
Total	22,997	-21,391	350	323	-484	1,040	2,836

¹⁾ Includes interest income from financial guarantees of EUR 33 million.

Gains and losses from financial instruments by measurement category in financial year 2022

	Financial assets at amortised cost	Financial liabilities at amortised cost	Financial assets at fair value – FVM	Financial liabilities at fair value		Derivatives designated for hedge accounting	Total
				FVM	FVD		
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Interest income	4,737 ¹⁾	0	110	610	0	-1,672	3,786
Interest expense	-268	-3,789	57	7	-349	2,738	-1,603
Net gains/losses from risk provisions	-124	0	0	0	0	0	-124
Commission income	9	0	1	0	0	0	9
Commission expense	-10	-5	-1	0	0	0	-16
Net gains/losses from hedge accounting	-32,943	33,070	0	0	0	23	150
Net gains/losses from other financial instruments at fair value through profit or loss	0	0	470	-2,254	1,850	0	65
Net gains/losses from disposal of financial assets at amortised cost	-1	0	0	0	0	0	-1
Net other operating income	0	0	0	0	0	0	0
Change in revaluation reserves	0	0	0	0	137	0	137
Total	-28,600	29,277	636	-1,637	1,638	1,089	2,403

¹⁾ Includes interest income from financial guarantees of EUR 33 million.

(56) Disclosures on fair value

The following tables show the financial instruments measured at fair value or for which the fair value is indicated in the Notes according to the valuation methods used. There is also a comparison of fair value and carrying amount.

Fair value of financial instruments by valuation method as of 31 December 2023

	Carrying amount (statement of financial position)	Fair value			Total	Difference from carrying amount
		Level 1	Level 2	Level 3		
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Assets						
Cash reserves	47,431	47,431	0	0	47,431	0
Financial assets at amortised cost						
Loans and advances to banks	324,475	12	24,706	282,628	307,346	-17,129
Loans and advances to customers	142,644	0	1,257	139,437	140,694	-1,950
Securities and investments	36,057	28,723	2,637	4,609	35,969	-88
Financial assets at fair value						
Loans and advances to banks – FVM	41	0	0	41	41	0
Loans and advances to customers – FVM	9,928	0	9,644	284	9,928	0
Securities and investments – FVM	4,509	109	3,029	1,370	4,509	0
Other derivatives – FVM	2,322	0	2,278	44	2,322	0
Value adjustments from macro fair value hedge accounting	-14,771	n/a	n/a	n/a	n/a	14,771
Derivatives designated for hedge accounting	5,443	0	5,443	0	5,443	0
Non-current assets held for sale	78	0	66	12	78	0
Total	558,156	76,275	49,061	428,424	553,760	-4,396
Liabilities and equity						
Financial liabilities at amortised cost						
Liabilities to banks	5,777	0	5,754	0	5,754	-23
Liabilities to customers	48,290	0	47,455	0	47,455	-835
Certificated liabilities	445,634	387,020	52,738	0	439,758	-5,875
Financial liabilities at fair value						
Liabilities to banks – FVD	221	0	221	0	221	0
Liabilities to customers – FVD	818	0	818	0	818	0
Certificated liabilities – FVD	6,613	4,095	2,519	0	6,613	0
Other derivatives – FVM	2,714	0	2,691	23	2,714	0
Value adjustments from macro fair value hedge accounting	-1	n/a	n/a	n/a	n/a	1
Derivatives designated for hedge accounting	9,300	0	9,300	0	9,300	0
Total	519,363	391,115	121,493	23	512,631	-6,732

Fair value of financial instruments by valuation method as of 31 December 2022

	Carrying amount (statement of financial position)	Fair value			Total	Difference from carrying amount
		Level 1	Level 2	Level 3		
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Assets						
Cash reserves	51,848	51,848	0	0	51,848	0
Financial assets at amortised cost						
Loans and advances to banks	313,919	0	9,354	275,683	285,037	-28,882
Loans and advances to customers	152,624	0	1,334	146,636	147,970	-4,655
Securities and investments	33,721	26,453	3,257	3,954	33,664	-57
Financial assets at fair value						
Loans and advances to banks – FVM	38	0	0	38	38	0
Loans and advances to customers – FVM	9,682	0	9,480	202	9,682	0
Securities and investments – FVM	4,422	87	3,336	1,000	4,422	0
Other derivatives – FVM	2,482	0	2,481	1	2,482	0
Value adjustments from macro fair value hedge accounting	-25,859	n/a	n/a	n/a	n/a	25,859
Derivatives designated for hedge accounting	9,005	0	9,005	0	9,005	0
Non-current assets held for sale	64	0	16	49	64	0
Total	551,948	78,388	38,262	427,562	544,213	-7,735
Liabilities and equity						
Financial liabilities at amortised cost						
Liabilities to banks	11,454	0	11,408	4	11,412	-42
Liabilities to customers	62,956	0	61,784	42	61,826	-1,130
Certificated liabilities	418,169	355,134	55,595	0	410,729	-7,440
Financial liabilities at fair value						
Liabilities to banks – FVD	208	0	208	0	208	0
Liabilities to customers – FVD	812	0	812	0	812	0
Certificated liabilities – FVD	6,699	4,257	2,442	0	6,699	0
Other derivatives – FVM	3,682	0	3,639	43	3,682	0
Value adjustments from macro fair value hedge accounting	18	n/a	n/a	n/a	n/a	-18
Derivatives designated for hedge accounting	10,819	0	10,819	0	10,819	0
Total	514,816	359,391	146,705	90	506,186	-8,630

Interest-related changes in value are also included in measuring the fair value of the financial instruments. Accordingly, when the comparison is made with the carrying amount, it is necessary to take into account the changes in value (interest-related) resulting from the recognition of Loans and advances and borrowings in macro fair value hedge accounting.

Change in level assignment of financial instruments measured at fair value with a transfer between levels 1 and 2 in financial year 2023

	Transfer from level 1 to level 2	Transfer from level 2 to level 1
	EUR in millions	EUR in millions
Assets		
Financial assets at fair value		
Loans and advances to banks – FVM	0	0
Loans and advances to customers – FVM	0	0
Securities and investments – FVM	0	6
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Non-current assets held for sale	0	0
Total	0	6
Liabilities and equity		
Financial liabilities at fair value		
Liabilities to banks – FVD	0	0
Liabilities to customers – FVD	0	0
Certificated liabilities – FVD	278	0
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Total	278	0

The group primarily made transfers from level 1 to level 2 in financial year 2023 where there were no quoted market prices from active markets available for the respective financial instruments. In contrast, there were transfers from level 2 to level 1 in financial year 2022 where quoted market prices from active markets were available again for the respective financial instruments.

Change in level assignment of financial instruments measured at fair value with a transfer between levels 1 and 2 in financial year 2022

	Transfer from level 1 to level 2	Transfer from level 2 to level 1
	EUR in millions	EUR in millions
Assets		
Financial assets at fair value		
Loans and advances to banks – FVM	0	0
Loans and advances to customers – FVM	0	0
Securities and investments – FVM	0	5
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Non-current assets held for sale	0	0
Total	0	5
Liabilities and equity		
Financial liabilities at fair value		
Liabilities to banks – FVD	0	0
Liabilities to customers – FVD	0	0
Certificated liabilities – FVD	0	186
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Total	0	186

Development of financial assets measured at fair value assigned to level 3 in financial year 2023

	Financial assets at fair value					Total
	Loans and advances to banks - FVM	Loans and advances to customers - FVM	Securities and investments - FVM	Other derivatives - FVM	Non-current assets held for sale	
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2023	38	202	1,000	1	49	1,289
A. Changes recognised in the income statement						
Net interest and commission income	0	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0	0
Net gains/losses from hedge accounting	0	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0	0
Net gains/losses from other financial instruments at fair value through profit or loss	4	0	4	35	-4	39
<i>Contracts still valid at year-end</i>	4	-1	-75	16	-4	-61
Total changes recognised in the income statement	4	0	4	35	-4	39
B. Changes recognised directly in equity						
Changes in level assignment	0	0	398	1	-24	375
Transfer from level 1 and level 2	0	0	711	2	0	712
Transfer to level 1 and level 2	0	0	-313	0	-24	-337
Additions	1	288	40	0	0	329
Disposals	-1	-202	-48	0	0	-252
Total changes recognised directly in equity	0	86	390	1	-24	453
Changes in consolidated group	0	0	0	0	0	0
Exchange rate changes	-1	-3	-21	6	-2	-22
Other changes	0	0	-3	1	-6	-8
As of 31 Dec. 2023	41	284	1,370	44	12	1,751

Development of financial liabilities measured at fair value assigned to level 3 in financial year 2023

	Financial liabilities at fair value				Total EUR in millions
	Liabilities to banks - FVD	Liabilities to customers - FVD	Certificated liabilities - FVD	Other derivatives - FVM	
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	
As of 1 Jan. 2023	0	0	0	43	43
A. Changes recognised in the income statement					
Net interest and commission income	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0
Net gains/losses from hedge accounting	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0
Net gains/losses from other financial instruments at fair value through profit or loss	0	0	0	-15	-15
<i>Contracts still valid at year-end</i>	0	0	0	-25	-25
Total changes recognised in the income statement	0	0	0	-14	-14
B. Changes recognised directly in equity					
Change in revaluation reserves	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0
Changes in level assignment	0	0	0	-6	-6
Transfer from level 1 and level 2	0	0	0	10	10
Transfer to level 1 and level 2	0	0	0	-17	-17
Additions	0	0	0	0	0
Disposals	0	0	0	0	0
Total changes recognised directly in equity	0	0	0	-6	-6
Exchange rate changes	0	0	0	0	0
Other changes	0	0	0	1	1
As of 31 Dec. 2023	0	0	0	23	23

The group carried out transfers from levels 1 and 2 to level 3 because in financial years 2023 and 2022 quoted prices on the active market or observable market parameters were no longer available or their effect on fair value was deemed material. In contrast, the group carried out transfers from level 3 to levels 1 and 2 if quoted prices on the active market or observable market parameters were available again or the effect of non-observable parameters on fair value was deemed immaterial.

Derivative transactions concluded as hedging instruments with customers were transferred from level 3 to level 2 in financial year 2022 primarily due to changes in the materiality assessment concerning unobservable data.

Development of financial assets measured at fair value assigned to level 3 in financial year 2022

	Financial assets at fair value					Total EUR in millions
	Loans and advances to banks – FVM EUR in millions	Loans and advances to customers – FVM EUR in millions	Securities and investments – FVM EUR in millions	Other derivatives – FVM EUR in millions	Non-current assets held for sale EUR in millions	
As of 1 Jan. 2022	49	135	619	616	51	1,471
A. Changes recognised in the income statement						
Net interest and commission income	0	-2	0	-5	0	-7
<i>Contracts still valid at year-end</i>	0	0	0	0	0	-1
Net gains/losses from hedge accounting	0	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0	0
Net gains/losses from other financial instruments at fair value through profit or loss	-13	-7	-117	-746	11	-872
<i>Contracts still valid at year-end</i>	-12	7	-111	-8	-1	-125
Total changes recognised in the income statement	-13	-9	-117	-751	11	-878
B. Changes recognised directly in equity						
Changes in level assignment	0	0	457	-28	-11	418
Transfer from level 1 and level 2	0	0	522	1	0	524
Transfer to level 1 and level 2	0	0	-65	-30	-11	-106
Additions	0	155	67	0	0	222
Disposals	-2	-87	-55	0	-16	-160
Total changes recognised directly in equity	-2	69	469	-28	-27	481
Changes in consolidated group	0	0	-1	0	0	-1
Exchange rate changes	3	7	40	8	2	60
Other changes	0	0	-11	156	11	156
As of 31 Dec. 2022	38	202	1,000	1	49	1,289

Development of financial liabilities measured at fair value assigned to level 3 in financial year 2022

	Financial liabilities at fair value				Total EUR in millions
	Liabilities to banks - FVD	Liabilities to customers - FVD	Certificated liabilities - FVD	Other derivatives - FVM	
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	
As of 1 Jan. 2022	0	0	0	86	86
A. Changes recognised in the income statement					
Net interest and commission income	0	0	0	28	28
<i>Contracts still valid at year-end</i>	0	0	0	0	0
Net gains/losses from hedge accounting	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0
Net gains/losses from other financial instruments at fair value through profit or loss	0	0	0	918	918
<i>Contracts still valid at year-end</i>	0	0	0	40	40
Total changes recognised in the income statement	0	0	0	946	946
B. Changes recognised directly in equity					
Change in revaluation reserves	0	0	0	0	0
<i>Contracts still valid at year-end</i>	0	0	0	0	0
Changes in level assignment	0	0	0	-1,113	-1,113
Transfer from level 1 and level 2	0	0	0	2	2
Transfer to level 1 and level 2	0	0	0	-1,115	-1,115
Additions	0	0	0	0	0
Disposals	0	0	0	-3	-3
Total changes recognised directly in equity	0	0	0	-1,116	-1,116
Exchange rate changes	0	0	0	-19	-19
Other changes	0	0	0	146	146
As of 31 Dec. 2022	0	0	0	43	43

The following tables show how an alternative determination of relevant unobservable data, i.e. values in best and worst case scenarios, would impact fair values for significant products allocated to this level.

Information on unobservable data as of 31 December 2023

Major classes	Valuation method used	Relevant unobservable data with alternative determination	Range
Loans and advances to banks and loans and advances to customers – FVM	Discounted cash flow method	Risk costs	+/- 10%
Securities and investments from equity finance business – FVM	Discounted cash flow method ¹⁾	Cost of capital	0.5% to 1.5% (absolute fluctuation)
		Long-term result	5% (relative fluctuation)
		Risk costs	+/- 10%
Non-current assets held for sale	Discounted cash flow method	Cost of capital	0.5% to 1.5% (absolute fluctuation)
		Long-term result	5% (relative fluctuation)
Other derivatives – derivatives with positive or negative fair values, which comprise a hedging instrument for customers with respect to export and project finance – FVM	Discounted cash flow method	Expected loss	+/- 30%

¹⁾ If the cost of capital and the long-term result could not be used for valuation, the sensitivities were calculated on the basis of the cost of risk.

Information on unobservable data as of 31 December 2022

Major classes	Valuation method used	Relevant unobservable data with alternative determination	Range
Loans and advances to banks and loans and advances to customers – FVM	Discounted cash flow method	Risk costs	+/- 10%
Securities and investments from equity finance business – FVM	Discounted cash flow method ¹⁾	Cost of capital	0.5% to 1.5% (absolute fluctuation)
		Long-term result	5% (relative fluctuation)
		Risk costs	+/- 10%
Non-current assets held for sale	Discounted cash flow method	Cost of capital	0.5% to 1.5% (absolute fluctuation)
		Long-term result	5% (relative fluctuation)
Other derivatives – derivatives with positive or negative fair values, which comprise a hedging instrument for customers with respect to export and project finance – FVM	Discounted cash flow method	Expected loss	+/- 30%

¹⁾ If the cost of capital and the long-term result could not be used for valuation, the sensitivities were calculated on the basis of the cost of risk.

Sensitivity analysis for the financial assets measured at fair value assigned to level 3 as of 31 December 2023

	Best case scenario	Reported value	Worst case scenario
	EUR in millions	EUR in millions	EUR in millions
Financial assets at fair value			
Loans and advances to banks – FVM	43	41	39
Loans and advances to customers – FVM	292	284	275
Securities and investments – FVM	1,527	1,370	1,225
Other derivatives – FVM	46	44	43
Non-current assets held for sale	13	12	11
Total	1,921	1,751	1,593

Sensitivity analysis for the financial liabilities measured at fair value assigned to level 3 as of 31 December 2023

	Best case scenario	Reported value	Worst case scenario
	EUR in millions	EUR in millions	EUR in millions
Financial liabilities at fair value			
Other derivatives – FVM	23	23	23
Total	23	23	23

Sensitivity analysis for the financial assets measured at fair value assigned to level 3 as of 31 December 2022

	Best case scenario	Reported value	Worst case scenario
	EUR in millions	EUR in millions	EUR in millions
Financial assets at fair value			
Loans and advances to banks – FVM	41	38	35
Loans and advances to customers – FVM	212	202	191
Securities and investments – FVM	1,115	1,000	896
Other derivatives – FVM	1	1	1
Non-current assets held for sale	56	49	43
Total	1,425	1,289	1,166

Sensitivity analysis for the financial liabilities measured at fair value assigned to level 3 as of 31 December 2022

	Best case scenario	Reported value	Worst case scenario
	EUR in millions	EUR in millions	EUR in millions
Financial liabilities at fair value			
Other derivatives – FVM	43	43	43
Total	43	43	43

(57) Disclosures on micro fair value hedge accounting**Disclosures on hedged items in micro fair value hedge accounting by risk type – 2023**

	Carrying amount of hedged items	Accumulated hedge fair value adjustment (fair value of the hedged risk for the hedged item)	Hedge fair value adjustment to be amortised (discontinued hedge relationships)	Statement of financial position items in which the hedged items are reported	Fair value changes in hedged items to determine hedge ineffectiveness (income statement effect – hedged items)
	EUR in millions	EUR in millions	EUR in millions		EUR in millions
Assets					
Interest risk					
Securities and investments – Bonds and other fixed-income securities	28,866	-1,296	0	Financial assets at amortised cost	1,156
Interest-currency risk					
Securities and investments – Bonds and other fixed-income securities	0	0	0	Financial assets at amortised cost	1
Liabilities and equity					
Interest risk					
Liabilities to banks/customers – promissory note loans	29,549	-1,314	1	Financial liabilities at amortised cost	-860
Certificated liabilities	223,440	-12,002	135	Financial liabilities at amortised cost	-9,891
Interest-currency risk					
Liabilities to banks/customers – promissory note loans	0	0	0	Financial liabilities at amortised cost	0
Certificated liabilities	114,305	-2,286	523	Financial liabilities at amortised cost	-3,062

Disclosures on hedged items in micro fair value hedge accounting by risk type – 2022

	Carrying amount of hedged items	Accumulated hedge fair value adjustment (fair value of the hedged risk for the hedged item)	Hedge fair value adjustment to be amortised (discontinued hedge relationships)	Statement of financial position items in which the hedged items are reported	Fair value changes in hedged items to determine hedge ineffectiveness (income statement effect – hedged items)
	EUR in millions	EUR in millions	EUR in millions		EUR in millions
Assets					
Interest risk					
Securities and investments – Bonds and other fixed-income securities	26,960	-2,453	0	Financial assets at amortised cost	-2,548
Interest-currency risk					
Securities and investments – Bonds and other fixed-income securities	101	-1	0	Financial assets at amortised cost	-2
Liabilities and equity					
Interest risk					
Liabilities to banks/customers – promissory note loans	27,249	-2,176	2	Financial liabilities at amortised cost	2,195
Certificated liabilities	192,316	-21,947	184	Financial liabilities at amortised cost	23,783
Interest-currency risk					
Liabilities to banks/customers – promissory note loans	0	0	0	Financial liabilities at amortised cost	0
Certificated liabilities	102,770	-5,645	803	Financial liabilities at amortised cost	7,074

Disclosures on hedging instruments in micro fair value hedge accounting by risk type – 2023

	Par value of hedging instruments	Carrying amount of hedging instruments	Statement of financial position items in which the hedging instruments are reported	Fair value changes in hedging instruments to determine hedge ineffectiveness (income statement effect – hedging instruments)	Average interest rate of hedging instruments ¹⁾
	EUR in millions	EUR in millions		EUR in millions	%
Assets					
Interest risk					
Interest-related transactions: interest rate swap	71,418	863	Derivatives designated for hedge accounting	-1,158	-2.1
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	68,931	3,118	Derivatives designated for hedge accounting	-1	1.9 ²⁾
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	224,233	4,722	Derivatives designated for hedge accounting	10,797	-3.7
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	113,102	3,466	Derivatives designated for hedge accounting	3,061	-0.2 ²⁾

¹⁾ Average interest rate based on the coupon of the fixed leg of the derivatives weighted with nominal volume

²⁾ Cross-currency interest rate swaps are primarily used to hedge interest risks, but also to hedge foreign currency risks. The difference between the average interest rate of the interest rate swaps and the cross-currency interest rate swaps results from the different interest rate of the hedged currencies, among other factors.

Disclosures on hedging instruments in micro fair value hedge accounting by risk type – 2022

	Par value of hedging instruments	Carrying amount of hedging instruments	Statement of financial position items in which the hedging instruments are reported	Fair value changes in hedging instruments to determine hedge ineffectiveness (income statement effect – hedging instruments)	Average interest rate of hedging instruments ¹⁾
	EUR in millions	EUR in millions		EUR in millions	%
Assets					
Interest risk					
Interest-related transactions: interest rate swap	37,838	511	Derivatives designated for hedge accounting	2,547	-0.9
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	69,391	6,188	Derivatives designated for hedge accounting	2	3.0 ²⁾
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	233,512	7,033	Derivatives designated for hedge accounting	-25,947	-2.7
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	101,100	3,567	Derivatives designated for hedge accounting	-7,085	0.6 ²⁾

¹⁾ Average interest rate based on the coupon of the fixed leg of the derivatives weighted with nominal volume

²⁾ Cross-currency interest rate swaps are primarily used to hedge interest risks, but also to hedge foreign currency risks. The difference between the average interest rate of the interest rate swaps and the cross-currency interest rate swaps results from the different interest rate of the hedged currencies, among other factors.

Analysis of par values of hedging instruments by hedge relationship according to remaining terms as of 31 December 2023

Due	In up to 1 month	Between 1 and 3 months	Between 3 months and 1 year	Between 1 year and 5 years	In more than 5 years
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Assets					
Interest risk					
Interest-related transactions: interest rate swap	731	1,302	3,042	36,229	30,115
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	215	7,423	9,903	34,736	16,654
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	4,107	2,035	36,775	115,733	65,583
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	0	9,913	19,431	74,855	8,902

Analysis of par values of hedging instruments by hedge relationship according to remaining terms as of 31 December 2022

Due	In up to 1 month	Between 1 and 3 months	Between 3 months and 1 year	Between 1 year and 5 years	In more than 5 years
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Assets					
Interest risk					
Interest-related transactions: interest rate swap	2,860	1,215	4,519	16,837	12,406
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	4,094	5,378	10,199	40,755	8,966
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	914	7,228	16,609	131,059	77,702
Interest-currency risk					
Cross-currency transactions: cross-currency interest rate swap	3,873	4,486	14,205	67,921	10,615

(58) Disclosures on macro fair value hedge accounting

Disclosures on hedged items in macro fair value hedge accounting by risk type – 2023

	Carrying amount of hedged items	Value adjustment from macro fair value hedge accounting	Value adjustment from macro fair value hedge accounting to be amortised (discontinued hedge relationships)	Statement of financial position items in which the hedged items are reported		Fair value changes in hedged items to determine hedge ineffectiveness (income statement effect – hedged items)
				Carrying amount before value adjustment from macro fair value hedge accounting	Value adjustment from macro fair value hedge accounting	
	EUR in millions	EUR in millions	EUR in millions			EUR in millions
Interest risk						
Assets					Value adjustment from macro fair value hedge accounting	
	277,527	-14,771	27	Financial assets at amortised cost		11,120
Liabilities and equity					Value adjustment from macro fair value hedge accounting	
	0	-1	-1	Financial liabilities at amortised cost		19

Disclosures on hedged items in macro fair value hedge accounting by risk type – 2022

	Carrying amount of hedged items	Value adjustment from macro fair value hedge accounting	Value adjustment from macro fair value hedge accounting to be amortised (discontinued hedge relationships)	Statement of financial position items in which the hedged items are reported		Fair value changes in hedged items to determine hedge ineffectiveness (income statement effect – hedged items)
				Carrying amount before value adjustment from macro fair value hedge accounting	Value adjustment from macro fair value hedge accounting	
	EUR in millions	EUR in millions	EUR in millions			EUR in millions
Interest risk						
Assets					Value adjustment from macro fair value hedge accounting	
	262,713	-25,859	105	Financial assets at amortised cost		-30,393
Liabilities and equity					Value adjustment from macro fair value hedge accounting	
	0	18	18	Financial liabilities at amortised cost		19

Disclosures on hedging instruments in macro fair value hedge accounting by risk type – 2023

	Par value of hedging instruments	Carrying amount of hedging instruments	Statement of financial position items in which the hedging instruments are reported	Fair value changes in hedging instruments to determine hedge ineffectiveness (income statement effect – hedging instruments)
	EUR in millions	EUR in millions		EUR in millions
Assets				
Interest risk				
Interest-related transactions: interest rate swap	199,107	1,463	Derivatives designated for hedge accounting	-9,338
Liabilities and equity				
Interest risk				
Interest-related transactions: interest rate swap	47,231	1,112	Derivatives designated for hedge accounting	-1,555

Disclosures on hedging instruments in macro fair value hedge accounting by risk type – 2022

	Par value of hedging instruments	Carrying amount of hedging instruments	Statement of financial position items in which the hedging instruments are reported	Fair value changes in hedging instruments to determine hedge ineffectiveness (income statement effect – hedging instruments)
	EUR in millions	EUR in millions		EUR in millions
Assets				
Interest risk				
Interest-related transactions: interest rate swap	211,820	2,306	Derivatives designated for hedge accounting	28,932
Liabilities and equity				
Interest risk				
Interest-related transactions: interest rate swap	21,863	219	Derivatives designated for hedge accounting	1,573

Analysis of par values of hedging instruments by remaining terms as of 31 December 2023

Due	In up to 1 month	Between 1 and 3 months	Between 3 months and 1 year	Between 1 year and 5 years	In more than 5 years
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Assets					
Interest risk					
Interest-related transactions: interest rate swap	1,245	1,582	20,643	89,843	85,793
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	846	850	1,215	17,048	27,271

Analysis of par values of hedging instruments by remaining terms as of 31 December 2022

Due	In up to 1 month	Between 1 and 3 months	Between 3 months and 1 year	Between 1 year and 5 years	In more than 5 years
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Assets					
Interest risk					
Interest-related transactions: interest rate swap	0	488	12,015	94,337	104,981
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	6,850	450	4,088	7,763	2,712

(59) Additional disclosures on derivatives

Analysis of derivatives by type of hedge

	Par value		Fair value 31 Dec. 2023		Fair value 31 Dec. 2022	
	31 Dec. 2023	31 Dec. 2022	positive	negative	positive	negative
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Interest-related derivatives	662,522	621,417	3,861	7,417	4,478	9,268
Cross-currency derivatives	156,750	148,515	3,799	4,590	6,846	5,227
Credit derivatives	0	0	0	0	0	0
Total	819,271	769,932	7,660	12,007	11,324	14,496

Cross-currency swaps are presented under Cross-currency derivatives.

Analysis of derivatives by counterparty

	Par value		Fair value 31 Dec. 2023		Fair value 31 Dec. 2022	
	31 Dec. 2023	31 Dec. 2022	positive	negative	positive	negative
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OECD banks	771,486	736,340	6,843	9,424	10,685	11,700
Non-OECD banks	142	172	4	4	4	6
Other counterparties	47,515	33,308	812	2,560	635	2,762
Public sector	129	112	0	20	0	27
Total	819,271	769,932	7,660	12,007	11,324	14,496

The analysis includes financial and credit derivatives which are presented in derivatives designated for hedge accounting and the sub-item other derivatives under Financial assets at fair value or Financial liabilities at fair value. Embedded derivatives that must be bifurcated are not included.

The economic hedge effect of financial derivatives with an aggregate principal amount of EUR 736.2 billion (31 Dec. 2022: EUR 688.0 billion) is reflected in the accounts; it was not possible to reflect the risk-mitigating impact of the remaining financial derivatives in the accounts (hedge accounting).

Unchanged from 31 December 2022, KfW Group did not pledge any collateral (in the form of securities) under derivative transactions that can be resold or repledged at any time without payments being past due.

However, liquid collateral totalling EUR 5,260 million (31 Dec. 2022: EUR 5,154 million) was provided, which is recognised under Financial assets at amortised cost – Loans and advances to banks or customers.

Unchanged from 31 December 2022, KfW Group did not receive any collateral (in the form of securities) under derivative transactions that can be resold or repledged at any time without payments by the protection seller being past due.

However, liquid collateral totalling EUR 1,549 million (31 Dec. 2022: EUR 3,922 million) was accepted, which was reported under Financial liabilities at amortised cost – Liabilities to banks or Liabilities to customers.

The volume of initial differences between the transaction price and model value arising from the use of a valuation technique that makes significant use of unobservable data which have yet to be amortised over the life of the financial instrument developed as follows during the reporting period:

Day one profit or loss

	2023	2022
	EUR in millions	EUR in millions
As of 1 Jan.	-108	-108
Addition	-22	-15
Reversal	16	17
Exchange rate changes	1	-1
As of 31 Dec.	-112	-108

The net gains/losses from financial derivatives not qualifying for hedge accounting includes amortisation effects in the amount of EUR 11 million (2022: EUR 10 million).

(60) Additional disclosures on financial liabilities at fair value

Disclosures on financial liabilities at fair value as of 31 December 2023

	Financial liabilities at fair value			Total EUR in millions
	Liabilities to banks	Liabilities to customers	Certificated liabilities	
	EUR in millions	EUR in millions	EUR in millions	
Carrying amount	221	818	6,613	7,651
Repayment amount at maturity	245	1,137	8,900	10,281
Difference	24	319	2,287	2,630
thereof borrowings for which the repayment amount builds up as a result of the capitalisation over time of interest due	0	316	2,522	2,838

Disclosures on financial liabilities at fair value as of 31 December 2022

	Financial liabilities at fair value			Total EUR in millions
	Liabilities to banks	Liabilities to customers	Certificated liabilities	
	EUR in millions	EUR in millions	EUR in millions	
Carrying amount	208	812	6,699	7,718
Repayment amount at maturity	245	1,187	9,321	10,752
Difference	37	375	2,622	3,034
thereof borrowings for which the repayment amount builds up as a result of the capitalisation over time of interest due	0	371	2,755	3,126

(61) Contractual payment obligations arising from financial instruments

Analysis of payment obligations by maturity range as of 31 December 2023¹⁾

	Up to 1 month	More than 1 and up to 3 months	More than 3 months and up to 1 year	More than 1 and up to 5 years	More than 5 years	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Financial liabilities at amortised cost						
Liabilities to banks	2,549	1,674	529	822	378	5,952
Liabilities to customers	9,520	2,449	12,247	19,838	6,670	50,723
Certificated liabilities	19,930	24,939	78,067	240,928	122,946	486,809
Financial liabilities at fair value						
Liabilities to banks	0	0	1	5	246	252
Liabilities to customers	0	1	6	266	998	1,271
Certificated liabilities	46	15	209	3,806	6,820	10,896
Net obligations arising from derivative financial instruments	518	-151	334	1,407	3,307	5,416
<i>thereof gross obligations arising from derivative financial instruments</i>	14,911	19,557	40,188	104,057	37,311	216,024
Obligations arising from on-balance sheet financial instruments	32,562	28,928	91,393	267,071	141,365	561,318
Obligations arising from off-balance sheet transactions	142,462	0	0	0	0	142,462
Total	175,024	28,928	91,393	267,071	141,365	703,781

¹⁾ Net obligations arising from derivative financial instruments comprise payment obligations which are offset against the corresponding payment claims from derivative contracts; gross obligations are reported as obligations arising from derivative financial instruments. Off-balance sheet transactions are generally allocated to the first maturity range.

Analysis of payment obligations by maturity range as of 31 December 2022¹⁾

	Up to 1 month	More than 1 and up to 3 months	More than 3 months and up to 1 year	More than 1 and up to 5 years	More than 5 years	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Financial liabilities at amortised cost						
Liabilities to banks	8,046	1,962	60	738	959	11,764
Liabilities to customers	9,906	6,007	14,682	29,388	6,130	66,113
Certificated liabilities	19,519	38,837	54,425	231,400	115,403	459,584
Financial liabilities at fair value						
Liabilities to banks	0	0	1	5	247	254
Liabilities to customers	0	53	6	69	1,202	1,330
Certificated liabilities	24	14	298	1,298	9,767	11,400
Net obligations arising from derivative financial instruments	-441	167	-863	-2,987	407	-3,718
<i>thereof gross obligations arising from derivative financial instruments</i>	17,920	22,773	23,898	85,172	28,573	178,336
Obligations arising from on-balance sheet financial instruments	37,053	47,040	68,608	259,911	134,115	546,727
Obligations arising from off-balance sheet transactions	135,695	0	0	0	0	135,695
Total	172,748	47,040	68,608	259,911	134,115	682,422

¹⁾ Net obligations arising from derivative financial instruments comprise payment obligations which are offset against the corresponding payment claims from derivative contracts; gross obligations are reported as obligations arising from derivative financial instruments. Off-balance sheet transactions are generally allocated to the first maturity range.

The maturity analysis of lease liabilities as lessee is reported under Other notes (in the “Leasing transactions as lessee” section).

(62) Disclosures on repurchase agreements

Disclosures on repo transactions

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Carrying amount of securities sold under repo transactions that continue to be recognised in Financial assets at amortised cost – Securities and investments	260	498
Financial liabilities at amortised cost – Liabilities to banks (countervalue)	257	501
Financial liabilities at amortised cost – Liabilities to customers (German Finance Agency)	0	2,367

The fair value of interest-bearing securities sold under repo transactions that continue to be recognised in Financial assets at amortised cost totalled EUR 260 million (31 Dec. 2022: EUR 498 million). The fair value of the corresponding repayment obligations was EUR 257 million (31 Dec. 2022: EUR 501 million).

Under Liabilities to customers, the group reported repo transactions with the German Finance Agency in the amount of EUR 2,367 million as of 31 December 2022, under which securities sold under repo transactions were available with KfW acting as borrower in securities lending transactions.

Moreover, as in 2022, KfW Group did not pledge any collateral (in the form of securities) under repo transactions that can be resold or repledged at any time without payments being past due.

As in 2022, the group did not receive any collateral (in the form of securities) under repo transactions that can be resold or repledged at any time without payments being past due.

As in 2022, the group neither pledged nor accepted any liquid collateral.

Disclosures on reverse repo transactions

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Financial assets at amortised cost – Loans and advances to banks (countervalue)	6,083	0
Financial assets at amortised cost – Loans and advances to customers (countervalue)	0	0
Total	6,083	0

The fair value of interest-bearing securities purchased under reverse repos that are not recognised amounted to EUR 5,950 million (31 Dec. 2022: EUR 0 million).

Moreover, KfW Group did not receive any collateral (in the form of securities) under reverse repo transactions that can be resold or repledged at any time without payments by the protection seller being past due, unchanged from 31 December 2022.

As in 2022, the group did not pledge any collateral (in the form of securities) under reverse repo transactions that can be resold or repledged at any time without payments being past due.

As in 2022, the group neither pledged nor accepted any liquid collateral.

(63) Disclosure on offsetting financial instruments

Disclosures on financial assets with netting agreements as of 31 December 2023

	Carrying amount of financial assets before offsetting (gross amount)	Netted figure as carrying amount of financial liabilities (gross amount)	Reported financial assets (net amount)	Carrying amount of non-offsettable financial liabilities	Fair value of collateral received	Total net amount
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OTC derivatives	27,775	20,217 ¹⁾	7,559	5,912	1,538	109
Reverse repos	6,083	0	6,083	178	5,905	0
Total	33,858	20,217	13,641	6,089	7,443	109

¹⁾ Thereof obligations from cash collateral for OTC derivatives with EUREX as the central counterparty in the amount of EUR 4,827 million

Disclosures on financial liabilities with netting agreements as of 31 December 2023

	Carrying amount of financial liabilities before offsetting (gross amount)	Netted figure as carrying amount of financial assets (gross amount)	Reported financial liabilities (net amount)	Carrying amount of non-offsettable financial assets	Fair value of collateral pledged	Total net amount
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OTC derivatives	26,480	15,377	11,103	5,912	5,107	85
Repos	257	0	257	178	80	0
Total	26,737	15,377	11,360	6,089	5,186	85

The disclosures on financial instruments with netting agreements only include gross and net amounts for financial assets and financial liabilities with netting agreements. The Notes on the two classes Derivatives designated for hedge accounting and Other derivatives also include financial assets with a carrying amount of EUR 207 million (31 Dec. 2022: EUR 185 million) and financial liabilities with a carrying amount of EUR 910 million (31 Dec. 2022: EUR 1,261 million), in particular from bifurcated embedded derivatives and derivatives not subject to netting agreements.

Receivables from reverse repo transactions are reported under Financial assets at amortised cost – Loans and advances to banks and Loans and advances to customers.

Disclosures on financial assets with netting agreements as of 31 December 2022

	Carrying amount of financial assets before offsetting (gross amount)	Netted figure as carrying amount of financial liabilities (gross amount)	Reported financial assets (net amount)	Carrying amount of non-offsettable financial liabilities	Fair value of collateral received	Total net amount
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OTC derivatives	38,602	27,300 ¹⁾	11,302	7,745	3,542	15
Reverse repos	0	0	0	0	0	0
Total	38,602	27,300	11,302	7,745	3,542	15

¹⁾ Thereof obligations from cash collateral for OTC derivatives with EUREX as the central counterparty in the amount of EUR 6,563 million

Disclosures on financial liabilities with netting agreements as of 31 December 2022

	Carrying amount of financial liabilities before offsetting (gross amount)	Netted figure as carrying amount of financial assets (gross amount)	Reported financial liabilities (net amount)	Carrying amount of non-offsettable financial assets	Fair value of collateral pledged	Total net amount
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OTC derivatives	33,977	20,737	13,240	7,745	5,149	345
Repos	2,868	0	2,868	0	2,850	18
Total	36,845	20,737	16,108	7,745	8,000	363

Other notes

(64) Off-balance sheet transactions

Analysis by class

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Irrevocable loan commitments	136,159	129,648
Financial guarantee contracts	1,454	2,054
Contingent liabilities from financial guarantees	2,033	1,490
Other contingent liabilities	2,727	2,388
Total	142,372	135,580

All off-balance-sheet transactions are disclosed in the Notes at their par values less any related provisions.

Other contingent liabilities include payment obligations attributable to equity investments which are not fully paid up and do not have to be consolidated.

As part of the sale of its stake in Deutsche Industriebank ("IKB") in 2008, KfW agreed to indemnify IKB for certain legal risks up to a certain amount after IKB's excess. As of the end of the reporting period, no proceedings are pending against IKB which are relevant in this context.

In accordance with IAS 37.92, no further disclosures on contingent liabilities were made.

(65) Trust activities and administered loans

Analysis of trust activities (transactions in KfW's own name but for the account of third parties)

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Loans and advances to banks	692	724
Loans and advances to customers	10,590	9,957
Securities and investments	10,018	8,692
Assets held in trust	21,299	19,374
Liabilities to banks	0	0
Liabilities to customers	21,299	19,374
Liabilities held in trust	21,299	19,374

EUR 13,654 million (31 Dec. 2022: EUR 13,348 million) of the assets held in trust is attributable to KfW Development Bank and DEG. Additional transactions with the Federal Government as trustor in the amount of EUR 5,253 million (31 Dec. 2022: EUR 4,352 million) are transactions mandated by the German Federal Government in accordance with Article 2 (4) of the KfW Law and are included in Securities and investments.

Moreover, KfW held guarantees of EUR 145 million (31 Dec. 2022: EUR 145 million) issued under the European Fund for Sustainable Development (EFSD), in trust for the European Union.

Volume of administered loans granted (loans in the name and for the account of third parties)

	31 Dec. 2023	31 Dec. 2022
	EUR in millions	EUR in millions
Administered loans	21,549	19,657

(66) Leasing transactions as lessee

Disclosures on lessee agreements as of 31 December 2023

	Due within one year	Due in between one and five years	Due in more than five years	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Lease liabilities (undiscounted)	12	21	5	38

Disclosures on lessee agreements as of 31 December 2022

	Due within one year	Due in between one and five years	Due in more than five years	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Lease liabilities (undiscounted)	11	25	9	45

Lease payments in the amount of EUR 1 million (2022: EUR 1 million) were incurred for short-term leases in the reporting period. For leases in which the underlying asset is of low value, lease payments amounted to EUR 4 million (2022: EUR 2 million). The group does not apply recognition requirements in either case as provided for in IFRS 16.5.

(67) Average number of employees during the financial year

	2023	2022
Female employees	3,918	3,843
Male employees	4,230	4,140
Gender undisclosed	0	1
Total	8,149	7,984
Staff not covered by collective agreements	5,409	5,242
Staff covered by collective agreements	2,315	2,325
Staff in external offices	424	417

(68) Remuneration report

The remuneration report describes the basic structure of the remuneration plan for members of the Executive Board and Board of Supervisory Directors; it also discloses their remuneration on an individual basis. The remuneration report is an integral part of the notes to the consolidated financial statements.

Overview of total remuneration of members of the Executive Board and Board of Supervisory Directors

	2023 ¹	2022
	EUR in thousands	EUR in thousands
Members of the Executive Board	3,766.7	3,255.2
Former members of the Executive Board and their surviving dependants	4,781.3	4,868.5
Members of the Board of Supervisory Directors	185.2	194.8
Total	8,733.3	8,318.5

¹⁾ The following changes were made in the composition of the Executive Board in financial year 2023:
– Katharina Herrmann was appointed to the Executive Board of KfW with effect from 8 April 2023.

Remuneration of the Executive Board

The remuneration system for KfW's Executive Board is aimed at appropriately compensating members of the Executive Board for their duties and responsibilities. Executive Board contracts are drawn up based on the 1992 version of the policy for hiring executive board members at credit institutions of the Federal Government (*Grundsätze für die Anstellung der Vorstandsmitglieder bei den Kreditinstituten des Bundes*). The Federal Public Corporate Governance Code (*Public Corporate Governance Kodex des Bundes – "PCGK"*) is taken into account when drawing up contracts. Each contract is individualised accordingly on this basis.

Components of remuneration

The Executive Board members receive fixed monetary remuneration paid in equal monthly instalments.

The following table shows total remuneration, broken down into remuneration components and other forms of remuneration, as well as additions to pension provisions for each member of the Executive Board.

Annual remuneration of the Executive Board and additions to pension provisions in financial years 2023 and 2022

	Salary		Other remuneration		Total		Additions to pension provisions ¹⁾	
	2023	2022	2023	2022	2023	2022	2023	2022
	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
Stefan Wintels (Chief Executive Officer)	830.5	810.3	18.0	18.8	848.5	829.1	710.5	422.6
Katharina Herrmann ²⁾	412.7	/	3.7	/	416.4	/	627.8	/
Melanie Kehr	597.4	560.6	12.2	12.8	609.6	573.4	485.9	-565.5
Christiane Laibach	562.8	549.1	14.8	24.8	577.6	573.9	313.9	117.1
Bernd Loewen	665.8	649.6	30.9	27.8	696.7	677.4	778.3	-2,200.3
Dr Stefan Peiß	597.4	582.9	20.5	18.6	617.9	601.5	573.0	-1,793.8
Total	3,666.6	3,152.5	100.1	102.7	3,766.7	3,255.2	3,489.4	-4,019.9

¹⁾ The discount rate for pension obligations decreased in 2023 due to the fall in long-term capital market rates, from 3.89% (31 Dec. 2022) to 3.41% (31 Dec. 2023).

²⁾ Executive Board member since 8 April 2023

Breakdown of other remuneration of the Executive Board in financial year 2023

	Company car	Group accident insurance	Health insurance	Long-term care insurance	Cost of maintaining a second home	Other	Total
	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
Stefan Wintels (Chief Executive Officer)	11.5	0.6	4.9	1.0	0.0	0.0	18.0
Katharina Herrmann ¹⁾	0.0	0.3	3.0	0.4	0.0	0.0	3.7
Melanie Kehr	7.1	0.4	4.2	0.5	0.0	0.0	12.2
Christiane Laibach	9.6	0.4	4.2	0.6	0.0	0.0	14.8
Bernd Loewen	12.3	0.5	17.2	1.0	0.0	0.0	31.0
Dr Stefan Peiß	12.0	0.4	7.1	1.0	0.0	0.0	20.5
Total	52.5	2.6	40.6	4.5	0.0	0.0	100.1

¹⁾ Executive Board member since 8 April 2023

Breakdown of other remuneration of the Executive Board in financial year 2022

	Company car	Group accident insurance	Health insurance	Long-term care insurance	Cost of maintaining a second home	Other	Total
	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
Stefan Wintels (Chief Executive Officer)	12.3	0.6	4.7	0.9	0.0	0.3	18.8
Melanie Kehr	7.5	0.4	4.2	0.3	0.0	0.3	12.8
Christiane Laibach	11.8	0.4	4.1	0.4	7.8	0.3	24.8
Bernd Loewen	11.6	0.5	14.5	0.9	0.0	0.3	27.8
Dr Stefan Peiß	10.2	0.4	6.8	0.9	0.0	0.3	18.6
Total	53.5	2.2	34.4	3.4	7.8	1.5	102.7

Breakdown of remuneration of the Executive Board from secondary employment in financial years 2023 and 2022

	2023 EUR in thousands	2022 EUR in thousands
Stefan Wintels (Chief Executive Officer) ¹⁾	342.0	221.8
Katharina Herrmann ²⁾	0.0	/
Melanie Kehr	37.8	33.8
Christiane Laibach	0.0	0.0
Bernd Loewen	0.0	16.7
Dr Stefan Peiß	0.0	0.0

¹⁾ Remuneration payments for 2022 were made in 2023.

²⁾ Katharina Herrmann was appointed to the Executive Board of KfW with effect from 8 April 2023.

Responsibilities

The Presidial and Nomination Committee has discussed the Executive Board remuneration system including contract components since the committee structure was modified in accordance with the applicable Section 25d of the German Banking Act (*Kreditwesengesetz – “KWG”*) and adopts and regularly reviews it. The Presidial and Nomination Committee is advised on these matters by the Remuneration Committee, which in turn works together with the Risk and Credit Committee in order to perform its duties. Likewise after consulting with the Remuneration Committee on the matter, the Board of Supervisory Directors decides upon the basic structure of the Executive Board’s remuneration system.

The Presidial and Nomination Committee most recently discussed remuneration issues on 6 December 2023.

Fringe benefits

Other remuneration largely comprises the contractual fringe benefits. Executive Board members are entitled to a company car with driver services for business and personal use. Executive Board members reimburse KfW for using a company car with a driver for private purposes in accordance with applicable tax regulations. They are reimbursed under tax regulations for the cost of maintaining a second home for business reasons.

Executive Board members are insured under a group accident insurance policy. Allowances are provided for health and long-term care insurance. Executive Board members are covered by a directors' and officers' liability insurance policy, which insures them against the risks of financial loss associated with their actions in their capacity as Executive Board members and by a supplemental legal expenses insurance policy and a contractual protection insurance policy. KfW Executive Board members acting in their management capacity are also protected by a special legal expenses group policy for employees covering criminal activities.

No remuneration is paid to members of the Executive Board for assuming executive body functions at group companies.

As with all other executives, Executive Board members may also opt to participate in the deferred remuneration programme – a supplemental company pension scheme financed via tax-free salary conversion. Moreover, they are entitled to anniversary bonuses in accordance with KfW's general company policy.

In addition, the fringe benefits include the cost of security systems at Executive Board members' homes; these benefits are not recognised as Other remuneration but as Non-personnel expenses.

The contractual fringe benefits are subject to taxation as benefits in money's worth for Executive Board members if they cannot be granted on a tax-free basis or if this is contractually agreed. No Executive Board member was granted or promised any benefits by a third party during the past financial year with a view to his/her position as a member of the KfW Executive Board.

Pension benefits and other benefits in the case of early retirement

In accordance with Article 1 (3) of the KfW Bylaws, the appointment of an Executive Board member should not generally extend past the legal age of retirement. Upon reaching the age of 65 or statutory retirement age and the expiry of their Executive Board contract, Executive Board members are entitled to claim pension payments; they are also entitled to pension benefits if their employment relationship terminates due to permanent disability.

Pension commitments for Executive Board members as well as their surviving dependants are based on the 1992 version of the Federal Government's policy for hiring executive board members at credit institutions. The PCGK is taken into account when drawing up the Executive Board contracts.

Executive Board member contracts include a severance pay cap in accordance with the recommendations of the PCGK. In other words, payments to these Executive Board members due to early termination of the Executive Board function without good cause in accordance with Section 626 of the German Civil Code (*Bürgerliches Gesetzbuch – "BGB"*) should not exceed the equivalent of two years' salary or remuneration including fringe benefits for the remainder of the contract, depending on which of the amounts is lower.

The full benefit entitlement totalled 49% of the final salary in the reporting year with different contractual arrangements. The retirement benefit entitlement amounted to 70% of the full entitlement for first-time appointment, with an increase per completed year of service of 0.98 to 1.53 percentage points depending on the contract (from an initial 34.3% to a maximum of 49% of the final salary).

The Executive Board contracts contain additional individual provisions, in particular concerning vesting of pension benefits. The newer contracts also include provisions on retrospective pension contributions where pension benefits are not yet vested and the member in question has not been reappointed.

Pension payments to former Executive Board members or their surviving dependants were as follows in 2023 and 2022:

Pension payments to former Executive Board members or their surviving dependants

	2023		2022	
	Headcount	EUR in thousands	Headcount	EUR in thousands
Former members of the Executive Board	18	4,033.8	19	4,058.1
Surviving dependants	7	747.5	8	810.4
Total	25	4,781.3	27	4,868.5

Provisions for pension obligations to former members of the Executive Board and their surviving dependants in the amount of EUR 61,827 thousand (31 Dec. 2022: EUR 60,446 thousand) were set up at the end of financial year 2023.

Remuneration of members of the Board of Supervisory Directors

The amount of remuneration to members of the Board of Supervisory Directors is determined by the supervisory authority in accordance with Article 7 (10) of the KfW Bylaws. With the last revision in May 2010, compensation to members of the Federal Government who are members of the Board of Supervisory Directors pursuant to Article 7 (1) No. 1 and No. 2 of the KfW Law was set at EUR 0.

In the reporting year, remuneration for other members of the Board of Supervisory Directors pursuant to Article 7 (1) Nos. 3–7 of the KfW Law amounted to EUR 5,100 p. a.; remuneration for membership of a Board of Supervisory Directors committee was a standard amount of EUR 600 p. a. for each member. Committee chairs did not receive special remuneration.

Members who join during the year receive their remuneration on a pro rata basis.

A daily allowance (EUR 200 per meeting day) is paid and travel expenses and applicable VAT are reimbursed upon request.

The following table provides details on the remuneration paid to the Board of Supervisory Directors in financial year 2023; stated amounts are net amounts in thousands of euros. Travel expenses are reimbursed upon submission of receipts and are not taken into account in the table.

Remuneration of members of the Board of Supervisory Directors for financial year 2023

No.	Name	Dates of membership	Board of Supervisory Directors membership ¹⁾	Committee membership ¹⁾	Daily allowance ³⁾	Total
			EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
		2023				
1.	Christian Lindner	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
2.	Dr Robert Habeck	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
3.	Annalena Baerbock	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
4.	Katharina Beck	1 Jan. – 31 Dec.	5.1	1.1	0.2	6.4
5.	Dr André Berghegger	1 Jan. – 31 Dec.	5.1	1.5	0.8	7.4
6.	Volker Bouffier ²⁾	1 Jan. – 31 Dec.	5.1	1.0	0.2	6.3
7.	Dr Andreas Dressel ²⁾	1 Jan. – 31 Dec.	5.1	0.6	0.2	5.9
8.	Yasmin Fahimi	24 May – 31 Dec.	3.2	0.7	0.0	3.9
9.	Björn Fecker ²⁾	20 Oct. – 31 Dec.	1.1	0.0	0.0	1.1
10.	Robert Feiger	1 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
11.	Tanja Gönner	1 Jan. – 31 Dec.	5.1	1.0	0.4	6.5
12.	Dr Louis Hagen ⁵⁾		0.0	0.0	0.2	0.2
13.	Gerald Heere ²⁾	1 Jan. – 31 Dec.	5.1	1.5	0.4	7.0
14.	Prof. Dr Hans-Günter Henneke ⁴⁾	1 Jan. – 31 Dec.	5.1	0.5	1.4	7.0
15.	Reiner Hoffmann	1 Jan. – 8 Feb.	0.6	0.2	0.0	0.8
16.	Dr Bruno Hollnagel	1 Jan. – 31 Dec.	5.1	0.0	0.6	5.7
17.	Verena Hubertz	1 Jan. – 31 Dec.	5.1	1.8	0.2	7.1
18.	Harald Hübner ²⁾	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
19.	Dr Dirk Jandura ⁴⁾	1 Jan. – 31 Dec.	5.1	0.6	1.6	7.3
20.	Andrea Kocsis	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
21.	Stefan Körzell	1 Jan. – 31 Dec.	5.1	1.2	0.4	6.7
22.	Ulrich Lange	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
23.	Steffi Lemke	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
24.	Rainer Neske ⁴⁾	1 Jan. – 31 Dec.	5.1	0.6	1.0	6.7
25.	Cem Özdemir	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
26.	Dr Marcus Optendrenk ^{2), 6)}	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
27.	Dr Bettina Orlopp	1 Jan. – 31 Dec.	5.1	0.5	0.0	5.6
28.	Dr Hans-Walter Peters ⁴⁾	1 Jan. – 31 Dec.	5.1	2.5	1.2	8.8
29.	Achim Post	1 Jan. – 31 Dec.	5.1	1.0	0.0	6.1
30.	Daniel Quinten	1 Jan. – 31 Dec.	5.1	1.0	1.0	7.1
31.	Michael Richter ^{2), 4)}	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
32.	Joachim Rukwied	1 Jan. – 31 Dec.	5.1	0.5	0.0	5.6
33.	Frank Schäffler	1 Jan. – 31 Dec.	5.1	1.2	0.6	6.9
34.	Helmut Schleweis	1 Jan. – 31 Dec.	5.1	2.5	0.0	7.6
35.	Svenja Schulze	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
36.	Holger Schwannecke	1 Jan. – 31 Dec.	5.1	1.8	0.2	7.1
37.	Dietmar Strehl ²⁾	1 Jan. – 5 July	2.8	0.7	1.0	4.5
38.	Dr Martin Wansleben	1 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
39.	Dr Kai H. Warnecke	1 Jan. – 31 Dec.	5.1	0.0	0.6	5.7
40.	Dr Volker Wissing	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
Total			145.4	25.2	14.6	185.2

¹⁾ The amounts had not yet been paid out as of the reporting date 31 December 2023.

²⁾ Amount governed by state law

³⁾ Amounts for financial year 2023 until the date of assessment. Any later claims will be included in the next report.

⁴⁾ The daily allowance includes payments for 2022.

⁵⁾ Payments for meeting attendance for 2022

⁶⁾ Member waived entitlement.

Remuneration of members of the Board of Supervisory Directors for financial year 2022

No.	Name	Dates of membership	Board of Supervisory Directors membership ¹⁾	Committee membership ¹⁾	Daily allowance ³⁾	Total
			EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
		2022				
1.	Dr Robert Habeck	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
2.	Christian Lindner	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
3.	Doris Ahnen ⁵⁾		0.0	0.0	0.2	0.2
4.	Annalena Baerbock	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
5.	Dr Danyal Bayaz ^{2), 4)}	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
6.	Katharina Beck	13 Jan. – 31 Dec.	5.1	0.5	0.2	5.8
7.	Dr André Berghegger	1 Jan. – 31 Dec.	5.1	1.8	0.6	7.5
8.	Volker Bouffier ^{2), 4)}	1 Jan. – 31 Dec.	5.1	1.2	0.2	6.5
9.	Dr Andreas Dressel ²⁾	1 Jan. – 31 Dec.	5.1	0.5	0.0	5.6
10.	Ingeborg Esser	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
11.	Robert Feiger	1 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
12.	Albert Füracker ^{2), 4)}	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
13.	Olav Gutting ⁵⁾		0.0	0.0	0.2	0.2
14.	Dr Louis Hagen	1 Jan. – 31 Dec.	5.1	1.2	0.4	6.7
15.	Prof. Dr Hans-Günter Henneke	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
16.	Reinhold Hilbers ²⁾	1 Jan. – 31 Dec.	5.1	1.8	1.2	8.1
17.	Reiner Hoffmann ⁴⁾	1 Jan. – 31 Dec.	5.1	1.2	0.6	6.9
18.	Gerhard Hofmann	1 Jan. – 6 Apr.	1.5	0.3	0.2	2.0
19.	Dr Bruno Hollnagel	1 Jan. – 31 Dec.	5.1	0.0	0.6	5.7
20.	Verena Hubertz	13 Jan. – 31 Dec.	5.1	1.4	0.0	6.5
21.	Dr Dirk Jandura	1 Jan. – 31 Dec.	5.1	0.5	0.8	6.4
22.	Alois Karl	1 Jan. – 31 Dec.	5.1	0.6	1.7	7.4
23.	Andrea Kocsis ⁴⁾	1 Jan. – 31 Dec.	5.1	0.0	0.6	5.7
24.	Stefan Körzell	1 Jan. – 31 Dec.	5.1	1.2	0.4	6.7
25.	Dr Joachim Lang	1 Jan. – 31 Dec.	5.1	1.2	0.0	6.3
26.	Steffi Lemke	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
27.	Rainer Neske ⁴⁾	1 Jan. – 31 Dec.	5.1	0.6	1.2	6.9
28.	Cem Özdemir	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
29.	Dr Hans-Walter Peters	1 Jan. – 31 Dec.	5.1	2.5	1.0	8.6
30.	Achim Post	13 Jan. – 31 Dec.	5.1	0.9	0.4	6.4
31.	Daniel Quinten	7 Apr. – 31 Dec.	3.6	0.9	0.8	5.3
32.	Michael Richter ²⁾	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
33.	Joachim Rukwied	1 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
34.	Frank Schäffler	13 Jan. – 31 Dec.	5.1	0.9	0.2	6.2
35.	Helmut Schleweis	1 Jan. – 31 Dec.	5.1	2.5	0.0	7.6
36.	Svenja Schulze	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
37.	Holger Schwannecke ⁴⁾	1 Jan. – 31 Dec.	5.1	1.4	1.2	7.7
38.	Dietmar Strehl ²⁾	1 Jan. – 31 Dec.	5.1	0.9	0.8	6.8
39.	Dr Martin Wansleben ⁴⁾	1 Jan. – 31 Dec.	5.1	0.5	0.6	6.2
40.	Dr Volker Wissing	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
Total			153.0	25.7	16.1	194.8

¹⁾ The amounts had not yet been paid out as of the reporting date 31 December 2022.

²⁾ Amount governed by state law

³⁾ Amounts for financial year 2022 until the date of assessment. Any later claims will be included in the next report.

⁴⁾ The daily allowance includes payments for 2021.

⁵⁾ Payments for meeting attendance for 2021

There are no pension obligations for members of the Board of Supervisory Directors.

Members of the Board of Supervisory Directors did not receive remuneration in the reporting year for personal services provided.

Members of the Board of Supervisory Directors are also covered by a directors' and officers' liability insurance policy, which insures them against the risks of financial loss associated with their actions in their capacity as Supervisory Directors and by a supplemental legal expenses insurance policy and a contractual protection insurance policy. There are currently no deductibles agreed. KfW Supervisory Directors acting in that capacity are also protected by a special legal expenses group policy for employees covering criminal action brought against Supervisory Directors and by a group accident insurance policy.

(69) Related party disclosures

Transactions between KfW and related parties are concluded as part of operating activities. KfW Group's related parties in accordance with IAS 24 include its subsidiaries which are not consolidated for reasons of immateriality, joint ventures, associates, KfW shareholders, interests held by the Federal Government over which it directly has significant influence, key management personnel and their family members and entities over which this group of persons exercise control. As for the persons in the remuneration report, the persons in key positions are limited to the KfW Executive Board and the members of the Board of Supervisory Directors.

KfW has exercised the relief option in accordance with IAS 24.25 for government-related entities.

Transactions with shareholders

KfW is a public-law institution in which the Federal Republic of Germany (Federal Government) holds an 80% stake and the Federal States hold a 20% stake. Any transactions with the Federal Government and the Federal States in financial year 2023 are covered by the rules and regulations set forth in the KfW Law. This also includes guarantees received for operations in which the Federal Republic of Germany has a state interest and for which the Federal Government has mandated KfW (mandated transactions in accordance with article 2 (4) of the KfW Law). Transactions with the Federal Government are, as a rule, offset by countertrade transactions with a third party. They do not constitute transactions within the meaning of IAS 24. For this reason, the treatment under IAS 24 is exclusively limited to business relationships with the Federal Government.

KfW Group reported receivables in the amount of EUR 20.1 billion (31 Dec. 2022: EUR 19.3 billion) arising from business relationships with shareholders, resulting in particular from the promotional mandate. These include, for example, the holding arrangements and the BAföG government loans. Promissory notes are held in "Financial assets at amortised cost" under Securities and investments in the amount of EUR 2.8 billion (31 Dec. 2022: EUR 3.3 billion). Hedging interest risks yielded a net gain from hedge accounting in the amount of EUR 133 million (2022: a loss of EUR 365 million). Under Other assets, KfW reported mainly claims for reimbursement from the Federal Government in the amount of EUR 636 million (31 Dec. 2022: EUR 626 million); these were offset in the same amount by provisions relating to agency agreements. Assets are offset by liabilities of EUR 8.3 billion (31 Dec. 2022: EUR 8.2 billion).

Irrevocable loan commitments of around EUR 11.5 billion (31 Dec. 2022: EUR 12.1 billion) were granted under the BAföG government loans. On the other hand, the group received loan commitments and guarantees from the

shareholders in the amount of EUR 137.5 billion (31 Dec. 2022: EUR 158.0 billion), including for stabilisation measures through extensive liquidity assistance for businesses during the coronavirus pandemic and in connection with the Russia-Ukraine war, for the market funds business of the business sector KfW Development Bank and for project and real estate financing.

Transactions with shareholders resulted in Net interest income of EUR 383 million (2022: EUR 48 million). There were also agency agreements between the Federal Government and KfW, which are reflected in Net commission income, in particular. Please refer to the information provided in the Notes on “Net commission income” and “Trust activities”.

Transactions with interests held by the Federal Government

As of 31 December 2023, KfW maintained credit balances at Deutsche Bundesbank in the amount of EUR 47.4 billion (31 Dec. 2022: EUR 51.8 billion). This resulted in interest income of EUR 1.6 billion (2022: EUR 54 million).

KfW recognised liabilities to the German Finance Agency of EUR 34.8 billion (31 Dec. 2022: EUR 50.8 billion). This includes promissory note loans to refinance support services in the context of the COVID-19 pandemic and the energy industry in connection with the Russia-Ukraine war. These promissory note loans are hedged against interest risk by means of a micro hedge. This resulted in a net loss from hedge accounting in the amount of EUR 0.8 billion (31 Dec. 2022: gain of EUR 1.9 billion). Transactions with the German Finance Agency resulted in a net interest expense of EUR 575 million (31 Dec. 2022: EUR –45 million).

In financial year 2022, the German Finance Agency had transferred German government securities to KfW for funding under the Energy security package via securities lending transactions. Repo transactions had then been concluded with the German Finance Agency, based on the previously transferred German government securities, which were not recognised by KfW (see notes on “Repurchase agreements and securities lending” and “Disclosures on repurchase agreements”).

Transactions with the remainder of the interests held by the Federal Government primarily include loans in the amount of EUR 342 million (31 Dec. 2022: EUR 449 million) in connection with corporate financing.

Transactions with group companies

Transactions with group companies mainly resulted in receivables in the amount of EUR 145 million (31 Dec. 2022: EUR 144 million), which were offset by risk provisions of EUR 11 million (31 Dec. 2022: EUR 15 million), and customer derivatives with a negative fair value of EUR 21 million (31 Dec. 2022: EUR 24 million). Moreover, liabilities to tbG Technologie-Beteiligungsgesellschaft mbH of EUR 72 million were reported (31 Dec. 2022: EUR 66 million).

Transactions with key persons

The business relationships between KfW and the members of the Executive Board and of the Board of Supervisory Directors are primarily determined by the KfW By-Laws and by applying the principles of the Federal Public Corporate Governance Code. KfW primarily provides direct loans under its promotional mandate, such as in the area of education financing, and disbursed grants of minor significance. The conditions and prices reflect market conditions or are concluded in accordance with KfW's general conditions for its loan programmes open to the general public.

(70) Auditor's fees

	2023	2022
	EUR in thousands	EUR in thousands
Audit	6,451	7,163
Other attestation services	1,216	828
Total	7,668	7,991

The auditor's fees comprise reversals of provisions for the 2022 auditor's fees amounting to a total of EUR 120,000.

(71) Disclosures on unconsolidated structured entities

The group's unconsolidated structured entities within the meaning of IFRS 12 relate to the following business sectors:

Structured entities in the business sector Financial markets

KfW makes investments in ABS and ABCP transactions as part of liquidity management and to promote the financing of climate and environmental protection projects. Moreover, the business sector Financial markets also manages an existing portfolio to which no further investments are added. This portfolio currently consists of securities issued since 2004.

As of 31 December 2023, the carrying amount of the positions held totalled EUR 6.1 billion (31 Dec. 2022: EUR 5.9 billion).

Structured entities in the business sector Export and project finance

Tailored leasing/financing concepts are structured via property leasing companies, primarily in the "Aviation and Rail" and "Maritime Industries" sector departments. A separate entity is created for each transaction, with the group participating as the lender. In the case of some of these business partners, the sponsoring banks act as managers of trust companies, but in the majority of cases, these business partners are set up as separate legal entities. The group provides loans to these companies, generally together with other credit institutions. KfW also has credit relationships with some structured entities as market participants in the commodities financing business, where the group supports these customers with pre-export financing structures.

As of 31 December 2023, the carrying amount of the positions held totalled EUR 1.8 billion (31 Dec. 2022: EUR 2.1 billion).

Structured entities in the business sector DEG

As a finance and advisory institution, DEG provides support within its development mandate in line with its business activity guidelines. DEG's mandate is to promote the development of the private sector of a) developing countries, b) central and eastern European countries and New Independent States (NIS), and c) other countries approved by its shareholder KfW in agreement with the Federal Government. In certain isolated cases this is undertaken via investments in structured entities in the form of equity investments and loans. In accordance with the applied risk principles, the risk of loss is limited to the volume invested or committed.

As of 31 December 2023, the carrying amount of the positions held totalled EUR 0.3 billion (31 Dec. 2022: EUR 0.2 billion).

The following table shows the carrying amounts of assets relating to unconsolidated structured entities and the maximum possible loss that could result from these exposures.

Maximum risk of loss as of 31 December 2023

	Loans and advances to customers	Securities and investments	Other assets	Contingent liabilities; irrevocable loan commitments
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Carrying amount	1,688	6,185	1	405
Risk and other provisions	24	0	0	1
Max. risk of loss	1,664	6,185	1	404

Maximum risk of loss as of 31 December 2022

	Loans and advances to customers	Securities and investments	Other assets	Contingent liabilities; irrevocable loan commitments
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Carrying amount	1,924	5,926	0	351
Risk and other provisions	35	1	0	0
Max. risk of loss	1,889	5,925	0	351

The maximum risk of loss is equal to the nominal amount for credit lines, (financial) guarantees and other liquidity facilities minus the provisions for credit risks recognised in the statement of financial position. The maximum risk of loss relating to the group's investments is their carrying amount (net). The maximum risk of loss does not include effects from the group's hedging instruments used to reduce the maximum risk of loss.

No support is provided to structured entities in the group beyond the respective financing.

In exceptional cases, the group acts as sponsor for structured entities in which it holds shares purely on a trust basis on behalf of the Federal Government. The risk of these structured entities lies exclusively with the Federal Government. In such cases, the group is considered the sponsor of the structured entities because the entities were initiated and/or structured by the group on behalf of the Federal Government.

(72) Disclosures on shareholdings

Subsidiaries included in the consolidated financial statements

Name/registered office	Capital share	Equity (IFRS)	Equity (IFRS)
		as of 31 Dec. 2023	as of 31 Dec. 2022
	%	EUR in millions	EUR in millions
KfW IPEX-Bank GmbH, Frankfurt am Main, Germany	100.0	4,682	4,498
DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne, Germany	100.0	3,105	3,067
KfW Beteiligungsholding GmbH, Bonn, Germany	100.0	3,119	3,182
Interkonnektor GmbH, Frankfurt am Main, Germany	100.0	53	70
KfW Capital GmbH & Co. KG, Frankfurt am Main, Germany	100.0	979	857
KfW IPEX-Bank Asia Ltd., Singapore	100.0	13	12

Associates included in the consolidated financial statements using the equity method

Name/registered office	Capital share	Equity	Equity
		as of 30 Sept. 2023	as of 30 Sept. 2022
	%	EUR in millions	EUR in millions
Microfinance Enhancement Facility S. A., Luxembourg	18.5	440	516
Green for Growth Fund, Southeast Europe S. A., Luxembourg	13.3	600	557
coparion GmbH & Co. KG, Cologne, Germany	16.4	358	350
Name/registered office	Capital share	Equity	Equity
	%	as of 31 Dec. 2023	as of 31 Dec. 2022
		EUR in millions	EUR in millions
DC Nordseekabel GmbH und Co. KG, Bayreuth, Germany	50.0	772	805

Microfinance Enhancement Facility S.A. (MEF) has been accounted for using the equity method since 2009. MEF, a KfW investment in a refinancing facility for microfinance institutions, is part of the business sector KfW Development Bank.

Green for Growth Fund, Southeast Europe S.A. (GGF) has been included in the consolidated financial statements using the equity method since 2010. GGF is a fund to promote SME and private household investment in energy efficiency and renewable energy in the Western Balkans and Turkey (KfW's investment in GGF is also part of the business sector KfW Development Bank).

DC Nordseekabel GmbH und Co. KG (DC Nordseekabel) was accounted for using the equity method, as a joint venture of Interkonnektor GmbH (Nordseekabel-Projekt NordLink in the business sector Export and project finance), for the first time in financial year 2015. The NordLink project is one of the major projects in the European energy sector and comprises an investment volume of around EUR 1.5 to 2 billion. As it will primarily serve as a conduit for renewably sourced energy, the underwater cable will play an important role in the success of Germany's energy transition. Norwegian state-owned power grid operator Statnett, KfW and the transmission systems operator TenneT, which is responsible for the German territory of the North Sea, concluded a cooperation agreement in February 2015 to construct an underwater cable between Germany and Norway. The NordLink project will be realised by a syndicate in which Statnett and DC Nordseekabel each hold a 50% stake. KfW – via its subsidiary Interkonnektor GmbH – and TenneT each hold a 50% stake in DC Nordseekabel, which is responsible for construction and obtaining permits in Germany.

coparion GmbH & Co. KG (coparion; business sector KfW Capital) as an associated company was accounted for using the equity method for the first time in financial year 2016. This co-investment fund by KfW and the German Federal Ministry for Economic Affairs and Climate Action (BMWK) participates in young technology companies by offering venture capital, together with private lead investors.

Entities not included in the consolidated financial statements

Five subsidiaries, one joint venture, seven associated companies, and one special purpose vehicle (including structured entities) of minor significance to the presentation of the net assets, financial and earnings position of KfW Group have not been consolidated; instead, they are shown in the statement of financial position under Securities and investments or Loans and advances. These companies account for approximately 0.05% of KfW Group's total assets.

List of KfW Group shareholdings as of 31 December 2023

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2023 ²⁾	Equity in TCU ^{2), 3)}	Net income in TCU ^{2), 3)}
KfW shareholdings							
A. Fully consolidated subsidiaries included in the consolidated financial statements							
1	DEG - Deutsche Investitions- und Entwicklungsgesellschaft mbH	Cologne	100.0	EUR	1.0000	2,516,872	10,250
2	Interkonnektor GmbH	Frankfurt am Main	100.0	EUR	1.0000	71,780	-9,887
3	KfW Beteiligungsholding GmbH	Bonn	100.0	EUR	1.0000	1,770,628	165,933
4	KfW Capital GmbH & Co. KG	Frankfurt am Main	100.0	EUR	1.0000	662,601	0
B. Subsidiaries not included in the consolidated financial statements							
5	Finanzierungs- und Beratungsgesellschaft mbH	Berlin	100.0	EUR	1.0000	5,664	9
6	tbG Technologie-Beteiligungsgesellschaft mbH	Bonn	100.0	EUR	1.0000	72,676	5,504
C. Other shareholdings (only capital shares totalling at least 20%)							
7	Berliner Energieagentur GmbH	Berlin	25.0	EUR	1.0000	8,215	418
Shareholdings of KfW IPEX-Bank GmbH							
A. Fully consolidated subsidiaries included in the consolidated financial statements							
1	KfW IPEX-Bank Asia Ltd. ⁶⁾	Singapore, Singapore	100.0	SGD	1.4591	18,648	1,046
Shareholdings of KfW Beteiligungsholding GmbH							
A. Fully consolidated subsidiaries included in the consolidated financial statements							
1	KfW IPEX-Bank GmbH	Frankfurt am Main	100.0	EUR	1.0000	3,206,313	0

List of KfW Group shareholdings as of 31 December 2023

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2023 ²⁾	Equity in TCU ^{2), 3)}	Net income in TCU ^{2), 3)}
Shareholdings of DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH							
A. Subsidiaries not included in the consolidated financial statements							
1	DEG Impact GmbH	Cologne	100.0	EUR	1.0000	2,297	651
2	DEG Impulse GmbH	Cologne	100.0	EUR	1.0000	2,911	-89
B. Other shareholdings (only capital shares totalling at least 20%)							
3	Aavishkaar Frontier Fund	Mumbai, India	20.8	USD	1.1050	21,996	-22,836
4	AC Capitaes Infrastructure Fund II L.P.	Toronto, Canada	32.4	USD	1.1050	1,134	-738
5	Ace Power Embilipitiya Pvt Ltd.	Colombo, Sri Lanka	26.0	LKR	358.1040	4,548,019	355,860
6	ACON Latin America Opportunities Fund IV-A, L.P.	Washington D.C., USA	39.9	USD	1.1050	70,095	1,936
7	Acon Latin America Opportunities Fund-A, L.P.	Washington, D.C., USA	40.0	USD	1.1050	18,299	-5,597
8	ACON Retail MXD, L.P.	Toronto, Canada	100.0	USD	1.1050	19,346	2,623
9	Adobe Social Mezzanine Fund I, L.P.	Mexico City, Mexico	32.9	USD	1.1050	2,064	-3,582
10	ADP Enterprises W.L.L.	Manama, Bahrain	23.3	EUR	1.0000	217,246	45,747
11	ADP II Holding 11 S.A.R.L.	Luxembourg, Luxembourg	22.2	USD	1.1050	72,002	-129
12	Advent Latin American Private Equity Fund III-B, L.P.	Wilmington, USA	100.0	USD	1.1050	⁵⁾	⁵⁾
13	AEP China Hydro Ltd.	Ebène CyberCity, Mauritius	30.2	USD	1.1050	⁵⁾	⁵⁾
14	AfricInvest III – SPV 1	Port Louis, Mauritius	21.8	EUR	1.0000	54,310	5,687
15	Agrofundos Brasil VI Fundo de Investimento em Participações Multiestratégia	São Paulo, Brazil	29.9	BRL	5.3618	⁵⁾	⁵⁾
16	AO Bucharagips	Kogon, Uzbekistan	24.9	UZS	13,651.1750	⁵⁾	⁵⁾
17	Apis Growth 2 Ltd.	Ebène CyberCity, Mauritius	25.6	USD	1.1050	33,062	-5,715
18	Ashmore Andean Fund III, L.P.	Toronto, Canada	60.0	USD	1.1050	199	-802
19	Banque Nationale de Développement Agricole S. A.	Bamako, Mali	21.4	XOF	655.9570	81,224,000	11,795,000
20	BanyanTree Growth Capital, LLC	Ebène CyberCity, Mauritius	27.0	USD	1.1050	17,143	6,688
21	Benetex Industries Ltd.	Dhaka, Bangladesh	28.3	BDT	121.3397	⁵⁾	⁵⁾
22	Berkeley Energy Wind Mauritius Ltd.	Ebène CyberCity, Mauritius	25.8	EUR	1.0000	⁵⁾	⁵⁾
23	Catalyst MENA Clean Energy Fund, L.P.	Amman, Jordan	24.6	USD	1.1050	75,318	33,339

List of KfW Group shareholdings as of 31 December 2023

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2023 ²⁾	Equity in TCU ^{2), 3)}	Net income in TCU ^{2), 3)}
Shareholdings of DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH							
B. Other shareholdings (only capital shares totalling at least 20%)							
24	CGFT Capital Pooling GmbH & Co. KG	Berlin, Germany	40.0	EUR	1.0000	⁵⁾	⁵⁾
25	CoreCo Central America Fund I, L.P.	Wilmington, USA	22.0	USD	1.1050	18,753	-1,079
26	Crescera Growth Capital Fund I-B, L.P.	Toronto, Canada	24.2	USD	1.1050	54,367	14,077
27	Crescera Investimentos Growth Capital Fund I-B, L.P.	Wilmington, USA	20.0	USD	1.1050	72,606	-36,864
28	Da Vinci Emerging Technologies Fund III L.P.	St. Peter Port, Guernsey	20.0	USD	1.1050	⁵⁾	⁵⁾
29	Darby Latin American Private Debt Fund IIIA, L.P.	Toronto, Canada	37.6	USD	1.1050	27,629	344
30	ECP Africa Fund IV LLC	Ebène CyberCity, Mauritius	34.5	USD	1.1050	101,799	-10,523
31	Elbrus Capital Fund III B, S.C.Sp.	Luxembourg, Luxembourg	100.0	USD	1.1050	⁵⁾	⁵⁾
32	Emerald Sri Lanka Fund I Ltd.	Ebène CyberCity, Mauritius	23.5	USD	1.1050	7,045	-5,012
33	EMF NEIF I (A), L.P.	Fareham, United Kingdom	28.1	USD	1.1050	35,039	-4,609
34	EMX Capital Partners, L.P.	Mexico City, Mexico	20.1	USD	1.1050	⁵⁾	⁵⁾
35	Evonik Lanxing (Rizhao) Chemical Industrial Co. Ltd.	Rizhao, China	41.0	CNY	7.8509	183,267	-1,334
36	Fortio Co. Ltd.	George Town, Grand Cayman, Cayman Islands	46.2	USD	1.1050	11,212	1,462
37	Frontier Bangladesh II, L.P.	George Town, Cayman Islands	27.2	USD	1.1050	19,926	-5,953
38	Grand Bremner Corp Pte. Ltd.	Singapore, Singapore	23.3	USD	1.1050	55,692	-14,413
39	Grassland Finance Ltd.	Hong Kong, Hong Kong	24.9	CNY	7.8509	384,748	-57,171
40	Greater Pacific Capital MIV Ltd.	George Town, Cayman Islands	26.7	USD	1.1050	⁵⁾	⁵⁾
41	Kandeo Fund II (A), L.P.	Bogota, Colombia	54.4	USD	1.1050	14,718	-9,288
42	Knauf Gips Buchara OOO	Bukhara, Uzbekistan	25.0	USD	1.1050	⁵⁾	⁵⁾
43	Knauf Gypsum Philippines Inc.	Calaca, Philippines	25.0	PHP	61.2830	1,663,840	-5,038
44	Landsberg Investments LLC.	Wilmington, USA	52.9	USD	1.1050	⁵⁾	⁵⁾
45	Lereko Metier REIPPP Fund Trust	Dunkeld, South Africa	32.3	ZAR	20.3477	436,223	5,359
46	Lereko Metier Solafrica Fund I Trust	Johannesburg, South Africa	47.5	ZAR	20.3477	⁵⁾	⁵⁾

List of KfW Group shareholdings as of 31 December 2023

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2023 ²⁾	Equity in TCU ^{2), 3)}	Net income in TCU ^{2), 3)}
Shareholdings of DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH							
B. Other shareholdings (only capital shares totalling at least 20%)							
47	MC II Pasta Ltd.	Ta' Xbiex, Malta	32.2	EUR	1.0000	⁵⁾	⁵⁾
48	Metier Retailability en Commandite Partnership	Dunkeld, South Africa	22.1	ZAR	20.3477	1,636,419	381,589
49	Navegar II (Netherlands) B.V.	Amsterdam, Netherlands	29.2	USD	1.1050	⁵⁾	⁵⁾
50	Novel Sky Global Limited	Road Town, Brit. Virgin Islands	25.0	USD	1.1050	⁵⁾	⁵⁾
51	OAO Belgips	Minsk, Belarus	50.0	BYN	3.6503	⁵⁾	⁵⁾
52	Onstar Galaxy SPV Pte. Ltd.	Singapore, Singapore	33.1	USD	1.1050	⁵⁾	⁵⁾
53	Openspace Ventures IV, L.P.	George Town, Cayman Islands	20.0	USD	1.1050	⁵⁾	⁵⁾
54	Operadora de Servicios Mega, S.A. de C.V., SOFOM E.R.	Zapopan, Mexico	21.9	MXN	18.7231	2,771,068	278,289
55	Osmanthus II Cayman Investment, L.P.	George Town, Cayman Islands	100.0	USD	1.1050	⁵⁾	⁵⁾
56	Russia Partners Technology Fund, L.P.	George Town, Cayman Islands	21.6	USD	1.1050	210,633	-190,545
57	SEAF Central and Eastern Europe Growth Fund LLC	Wilmington, USA	23.9	USD	1.1050	⁵⁾	⁵⁾
58	Sierra Madre Philippines I, L.P.	George Town, Cayman Islands	20.0	USD	1.1050	81,771	10,881
59	Siguler Guff Global Emerging Markets Co-Investment Opportunities (AIF), LP	London, United Kingdom	100.0	USD	1.1050	41,713	2,184
60	Stratus SCP Fleet Fundo de Investimento em Participações – Multiestratégia	São Paulo, Brazil	39.7	BRL	5.3618	83,546	2,269
61	Stratus SCP II Investors – B LP	São Paulo, Brazil	75.0	USD	1.1050	10,053	-3,907
62	Takura II Feeder Fund Partnership	Cape Town, South Africa	25.0	USD	1.1050	52,650	-6,218
63	Tolstoi Investimentos S.A.	São Paulo, Brazil	31.1	BRL	5.3618	⁵⁾	⁵⁾
64	TOO Isi Gips Inder	Inderborskiy, Kazakhstan	40.0	KZT	503.4450	⁵⁾	⁵⁾
65	TOO Knauf Gips Kaptshagaj. Enterprise with share of DEG LLP	Kapchagay, Kazakhstan	40.0	KZT	503.4450	⁵⁾	⁵⁾
66	Triple P SEA Financial Inclusion Fund LP	Singapore, Singapore	25.2	USD	1.1050	71,502	10,869
67	Vietnam Opportunity Fund II PTE. LTD.	Singapore, Singapore	32.0	USD	1.1050	34,594	3,114
68	Vinci Impact and Return IV A, LP	Toronto, Canada	51.8	USD	1.1050	6,233	562
69	Whitlam Holding PTE. Ltd.	Singapore, Singapore	38.7	USD	1.1050	72,872	10,522

List of KfW Group shareholdings as of 31 December 2023

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2023 ²⁾	Equity in TCU ^{2), 3)}	Net income in TCU ^{2), 3)}
Shareholdings of DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH							
B. Other shareholdings (only capital shares totalling at least 20%)							
70	Worldwide Group, Inc	Charlestown, Saint Kitts and Nevis	33.4	USD	1.1050	27,639	1,848
71	wpd Duqueco S.p.A.	Santiago de Chile, Chile	24.5	USD	1.1050	24,934	-1,888
72	wpd Malleco S.p.A.	Santiago Provincia, Chile	24.5	MUR	48.6650	103,262	-17,025
73	wpd Negrete S.p.A.	Santiago de Chile, Chile	24.5	USD	1.1050	13,553	-2,914
Shareholdings of Interkonnektor GmbH							
A. Joint ventures included in the consolidated financial statements							
1	DC Nordseekabel GmbH & Co. KG	Bayreuth	50.0	EUR	1.0000	766,819	30,918
B. Joint ventures not included in the consolidated financial statements							
2	DC Nordseekabel Beteiligungs GmbH	Bayreuth	50.0	EUR	1.0000	72	3
Shareholdings of KfW Capital GmbH & Co. KG							
A. Subsidiaries not included in the consolidated financial statements							
1	KfW Capital Verwaltungs GmbH	Frankfurt am Main	100.0	EUR	1.0000	41	1

¹⁾ ISO currency code

²⁾ CU = currency units in local currency; TCU = thousand currency units in local currency

³⁾ Financial statements prepared in accordance with local financial reporting framework

⁴⁾ The company is in the start-up phase; no annual financial statements have been prepared yet.

⁵⁾ No current annual financial statements are available.

⁶⁾ Preliminary data is available as of 31 December 2023.

The data is based on the most recent annual financial statements of the investee (where available).

(73) Events after the balance sheet date

No significant events have occurred since 31 December 2023.

Frankfurt am Main, 27 February 2024

KfW
The Executive Board



Stefan Wintels
(Chief Executive Officer)



Katharina Herrmann



Melanie Kehr



Christiane Laibach



Bernd Loewen



Dr Stefan Peiß

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Responsibility statement

To the best of our knowledge, and in accordance with the applicable accounting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of KfW Group, and the combined management report includes a fair review of the development and performance of the business and the position of KfW Group, together with a description of the principal risks and rewards associated with the expected development of KfW Group.

Frankfurt am Main, 27 February 2024

KfW
The Executive Board



Stefan Wintels
(Chief Executive Officer)



Katharina Herrmann



Melanie Kehr



Christiane Laibach



Bernd Loewen



Dr Stefan Peiß

Independent auditor's report¹⁾

To Kreditanstalt für Wiederaufbau Anstalt des öffentlichen Rechts, Frankfurt am Main/Germany

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE COMBINED MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of Kreditanstalt für Wiederaufbau Anstalt des öffentlichen Rechts, Frankfurt am Main/Germany, and its subsidiaries (the Group), which comprise the statement of financial position as at 31 December 2023, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from 1 January to 31 December 2023, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report for the parent and the group of Kreditanstalt für Wiederaufbau Anstalt des öffentlichen Rechts, Frankfurt am Main/Germany, for the financial year from 1 January to 31 December 2023. In accordance with the German legal requirements, we have not audited the content of the separate combined non-financial report of KfW as the parent company and the group in accordance with Section 289b (3), Sections 315c in conjunction with 289b (3) German Commercial Code (HGB), which is in turn part of the sustainability report of KfW Group and which is referred to in the section "Non-financial statement" of the combined management report, nor the other parts of the sustainability report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2023 and of its financial performance for the financial year from 1 January to 31 December 2023, and
- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of the above-mentioned combined non-financial report of KfW as the parent company and the group in accordance with Section 289b (3), Sections 315c in conjunction with 289b (3) HGB, nor the other parts of the sustainability report of KfW Group.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

¹⁾ Translation of the independent auditor's report issued in German language on the consolidated financial statements prepared in German language by the Executive Board of KfW, Frankfurt am Main. The German language statements are decisive.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report” section of our auditor’s report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the combined management report.

Other information

The executive directors and/or the board of supervisory directors are responsible for the other information. The other information comprises

- the report of the board of supervisory directors which is expected to be presented to us after the date of this auditor’s report,
- the separate combined non-financial report of KfW as the parent company and the group in accordance with Section 289b (3), Sections 315c in conjunction with 289b (3) HGB, which is in turn part of the sustainability report of KfW Group and which is referred to in the section “Non-financial statement” of the combined management report, and which is expected to be presented to us after the date of this auditor’s report,
- the corporate governance report, which also includes the “Declaration of compliance”, which is referred to in the section “Declaration of compliance” in the combined management report and which is expected to be presented to us after the date of this auditor’s report,
- the executive directors’ confirmation regarding the consolidated financial statements and the combined management report pursuant to Section 297 (2) sentence 4 and Section 315 (1) sentence 5 HGB, and
- all other parts of the annual report,
- but not the consolidated financial statements, not the audited content of the combined management report and not our auditor’s report thereon.

The board of supervisory directors is responsible for the report of the board of supervisory directors. In accordance with Section 19 of the KfW Bylaws, the executive directors and the board of supervisory directors are required to annually declare that they recognise the Federal Public Corporate Governance Code as amended and to publish the declaration of compliance as part of the corporate governance report. Otherwise, the executive directors are responsible for the other information.

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information identified above and, in doing so, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the audited content of the combined management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Board of Supervisory Directors for the Consolidated Financial Statements and the Combined Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the combined management report that as a whole provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The board of supervisory directors is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also

- identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRS as adopted by the EU and with the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- perform audit procedures on the prospective information presented by the executive directors in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the Audit of the Electronic Reproductions of the Consolidated Financial Statements and of the Combined Management Report Prepared for Publication Pursuant to Section 317 (3a) HGB

Audit Opinion

We have performed an audit in accordance with Section 317 (3a) HGB to obtain reasonable assurance whether the electronic reproductions of the consolidated financial statements and of the combined management report (hereinafter referred to as “ESEF documents”) prepared for publication, contained in the file, which has the SHA 256 value e4bd7529201b4ff9b38172e022a9f2f69c6f64508df57942f9245c09918a8b3a, meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB (“ESEF format”). In accordance with the German legal requirements, this audit only covers the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format, and therefore covers neither the information contained in these electronic reproductions nor any other information contained in the file identified above.

In our opinion, the electronic reproductions of the consolidated financial statements and of the combined management report prepared for publication contained in the file identified above meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB. Beyond this audit opinion and our audit opinions on the accompanying consolidated financial statements and on the accompanying combined management report for the financial year from 1 January to 31 December 2023 contained in the “Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report” above, we do not express any assurance opinion on the information contained within these electronic reproductions or on any other information contained in the file identified above.

Basis for the Audit Opinion

We conducted our audit of the electronic reproductions of the consolidated financial statements and of the combined management report contained in the file identified above in accordance with Section 317 (3a) HGB and on the basis of the IDW Auditing Standard: Audit of the Electronic Reproductions of Financial Statements and Management Reports Prepared for Publication Purposes Pursuant to Section 317 (3a) HGB (IDW AuS 410 (06.2022)). Our responsibilities in this context are further described in the “Group Auditor’s Responsibilities for the Audit of the ESEF Documents” section. Our audit firm has applied the requirements of the IDW Quality Management Standards.

Responsibilities of the Executive Directors and the Board of Supervisory Directors for the ESEF Documents

The executive directors of the parent are responsible for the preparation of the ESEF documents based on the electronic files of the consolidated financial statements and of the combined management report according to Section 328 (1) sentence 4 no. 1 HGB and for the tagging of the consolidated financial statements according to Section 328 (1) sentence 4 no. 2 HGB.

In addition, the executive directors of the parent are responsible for such internal controls that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements for the electronic reporting format pursuant to Section 328 (1) HGB.

The board of supervisory directors is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group Auditor's Responsibilities for the Audit of the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the audit. We also

- identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- obtain an understanding of internal control relevant to the audit of the ESEF documents in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- evaluate the technical validity of the ESEF documents, i.e. whether the file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, in the version in force at the reporting date, on the technical specification for this electronic file.
- evaluate whether the ESEF documents enable a XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited combined management report.
- evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

OTHER MATTER – USE OF THE AUDITOR’S REPORT

Our auditor’s report must always be read together with the audited consolidated financial statements and the audited combined management report as well as with the audited ESEF documents. The consolidated financial statements and the combined management report converted into the ESEF format – including the versions to be submitted for inclusion in the Company Register – are merely electronic reproductions of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the ESEF report and our audit opinion contained therein are to be used solely together with the audited ESEF documents made available in electronic form.

Frankfurt am Main/Germany, 6 March 2024

Deloitte GmbH

Wirtschaftsprüfungsgesellschaft

Signed:
Prof. Dr Carl-Friedrich Leuschner
Wirtschaftsprüfer
(German Public Auditor)

Signed:
Christian Schweitzer
Wirtschaftsprüfer
(German Public Auditor)

Imprint

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