



Financial Report

2021

»»» 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 2021, KfW provided promotional funds totalling EUR 107.0 billion for this purpose. It has no retail branches and does not hold any customer deposits. To fund its business activities, KfW raised EUR 82.6 billion in the international capital markets, of which EUR 16.2 billion via "Green Bonds - Made by KfW". This is equivalent to a record 20% of the total funding volume. 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

	2021	2020
	EUR in billions	EUR in billions
	107.0	135.3

Key figures of the income statement

	2021	2020
	EUR in millions	EUR in millions
Net interest income (before promotional expense)	2,531	2,601
Net commission income (before promotional expense)	634	584
Administrative expense (before promotional expense)	1,452	1,330
Operating result before valuation (before promotional expense)	1,712	1,855
Risk provisions for lending business	196	-777
Net gains/losses from hedge accounting and other financial instruments at fair value through profit or loss	657	-412
Net gains/losses from securities and investments and from investments accounted for using the equity method	10	25
Operating result after valuation (before promotional expense)	2,575	691
Net other operating income or loss (before promotional expense)	-34	-2
Profit/loss from operating activities (before promotional expense)	2,541	688
Promotional expense	188	88
Taxes on income	137	76
Consolidated profit	2,215	525
Consolidated profit before IFRS effects	2,354	633
Cost-income ratio (before promotional expense) ¹⁾	45.9%	41.8%

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. 2021	31 Dec. 2020
	EUR in billions	EUR in billions
Total assets	551.0	546.4
Volume of lending	564.2	543.1
Volume of business	686.9	674.1 ¹⁾
Equity	34.2	31.8
Equity ratio	6.2%	5.8%

¹⁾ The comparative figure was adjusted by EUR 332 million to fully reflect all trust relationships.

Key regulatory figures

	31 Dec. 2021	31 Dec. 2020
	EUR in billions	EUR in billions
Risk position	135.1	124.2
Tier 1 capital	32.2	29.9
Regulatory capital	32.3	30.1
Tier 1 capital ratio	23.9%	24.1%
Total capital ratio	23.9%	24.3%

Employees of KfW Group¹⁾

	2021	2020
	7,734	7,382

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,

2021 was an exceptional promotional year for KfW. After the second wave of the pandemic abated at the beginning of the year, we were very optimistic about what the year still held in store. Many economists expected a rapid recovery of the global economy. In actual fact, new waves of infection quickly forced us to face reality. The unpredictable development of the pandemic, persistent supply chain bottlenecks, rising energy costs, soaring inflation and growing international political tension created great uncertainty. In this very challenging environment, KfW provided active support to the economy and society in Germany as well as to its partners worldwide.

Commitments in 2021

KfW's new business reached a volume of EUR 107 billion in 2021. This is below the level of the pandemic year 2020 but also considerably higher than the average of the pre-COVID years. The decline is fortunately due in particular to the considerable drop in demand for coronavirus aid both in Germany and in the internationally oriented business areas. In contrast, our business has been boosted by strong demand in the areas of climate change and the environment.

Business in Germany, with a volume of EUR 82.9 billion, accounted for the lion's share of our new commitments. These include some 1.3 million individual commitments for loans or grants that we issued in Germany, which underscores that our funding reaches a broad range of recipients.

This is further evidenced by a promotional business volume of EUR 43.4 billion in the Private Clients segment,



The decade ahead will determine what consequences our actions will have for the generations to come. At KfW, we want to make an effective contribution to ensuring that the necessary transformation of the economy and society is successful.

Stefan Wintels
(Chief Executive Officer)



constituting an all-time high. At EUR 34.5 billion, the majority went to the promotion of energy-efficient residential buildings. In the first few weeks of 2022, the huge and growing demand for Federal Funding for Efficient Buildings resulted in the earmarked budgetary resources being exhausted ahead of schedule, thus forcing KfW to temporarily halt the programme. At the same time, the Federal Government and KfW commenced in-depth talks on the redesign and prompt continuation of funding.

The business segment Mittelstandsbank (SME Bank) achieved new business volume of EUR 29.6 billion. It

is particularly encouraging to note that promotion of investments in the areas of climate change, the environment and sustainability has received a strong boost.

We felt the impact of the coronavirus pandemic and the difficult political and economic environment in our internationally oriented business areas. However, although the new business volume of both KfW IPEX-Bank and the promotion of developing countries and emerging economies was lower than in 2020, the two business sectors have proven they are stable and reliable partners for export companies and international projects.



With tailored COVID-19 emergency assistance programmes of EUR 2.7 billion on behalf of the BMZ, we were able to support governments and the private sector in developing countries quickly and effectively.



Christiane Laibach

KfW coronavirus aid

When KfW launched its coronavirus aid programmes in collaboration with policymakers and the German banking industry on 23 March 2020, few would have expected them still to be necessary in spring 2022.

KfW provided assistance to around 140,000 businesses to mitigate the impact of the pandemic from programme launch until the end of 2021. Nearly all of these were small and medium-sized enterprises. During this period, KfW committed around EUR 57 billion to businesses, non-profit organisations and students.

KfW coronavirus aid commitments amounted to EUR 10.1 billion in 2021, just a good 20% of the previous year's volume.

KfW continued to support the Federal Ministry for Economic Cooperation and Development (BMZ) in mitigating the consequences of the pandemic for developing countries and emerging economies. By the end of the year, around EUR 2.7 billion had been mobilised through KfW for the implementation of the Emergency COVID-19 Support Programme.

Our result in 2021

The earnings position improved substantially in financial year 2021 after the effects of the COVID-19 pandemic the year before, recording a consolidated profit of EUR 2,215 million (2020: EUR 525 million).

The operating result before valuation (before promotional expense) of EUR 1,712 million was below the previous year (2020: EUR 1,855 million) – despite higher net commission income – due to lower net interest income and higher administrative expenses.

The valuation result largely recovered from the extraordinarily great impact of the coronavirus pandemic, contributing EUR 829 million to consolidated comprehensive income (2020: EUR -1,166 million). This was due to reversals of impairment losses after the effects of the COVID-19 pandemic the year before, and to further valuation gains on the equity investment portfolio.

At EUR 188 million, promotional expense was considerably higher in 2021 than in the previous year (EUR 88 million), primarily due to the increase in interest rate reductions. The main reasons for this increase were passing on negative funding rates to KfW financing partners from the third quarter 2021 onwards, and the resultant increase in demand for promotional loans at reduced rates.

Consolidated total assets rose by EUR 4.6 billion to EUR 551.0 billion in 2021 (2020: EUR 546.4 billion). This was due in particular to higher net loans and advances of EUR 14.9 billion, offset by the decline in value adjustments from macro hedging (separate line item) of EUR 7.6 billion.



We largely made up for the burdens from 2020 in the financial year and were able to achieve a strong consolidated income of EUR 2.2 billion, in particular due to our equity investments.

Bernd Loewen



Decade of decision

In order to be able to fulfil our promotional mandate both effectively and efficiently in the future, we need to revise our standards. Our promotional success will be measured more by the impact it generates. This is imperative given the huge challenges we face. The decade ahead will determine how future generations deal with the challenges of climate change and whether democracy's promise of prosperity will be fulfilled for them too.

We want to make an effective contribution to ensuring that the necessary transformation of the economy and society is successful. We therefore place top priority on delivering this contribution to transformation

policy. Our main focus in this regard is on four issues: climate action as a key task for the future, innovation and digitalisation, dealing with the profound societal changes, and securing the energy supply.

In order to achieve all of this, we will also undergo transformation ourselves and develop KfW into a digital and transformative promotional bank. To this end, we rely on our highly motivated and qualified staff. We would like to take this opportunity to thank them for their excellent work over the past year and let them know we are counting on their continued commitment in the year ahead.



The risk situation remained volatile in 2021 and continued to be marked by the COVID-19 pandemic. The deterioration of the geopolitical situation will mark the year 2022 and pose completely new challenges for the management of financial and non-financial risks.



Dr Stefan Peiß



Digitalisation and innovation are indispensable for achieving the climate targets. The use of data is essential for our understanding of causal relationships and will enable us to achieve our funding goals even more precisely.

Melanie Kehr



Watershed moment

Shortly before publication of this annual report in spring 2022, we are experiencing a war in Europe sparked by Russia's invasion of Ukraine and marking a watershed moment. KfW was founded in 1948 not least to overcome the consequences of hatred, war and violence. Since then, it has been our aim to effectively contribute to improving living conditions in Germany,

Europe and around the world. We are therefore all the more appalled by the war in Ukraine. The people there are experiencing unimaginable suffering. Our thoughts and our solidarity go out to them. We sincerely hope that reason and humanity will prevail and that peace and security will be restored in Europe as soon as possible.

Stefan Wintels
(Chief Executive Officer)

Melanie Kehr

Christiane Laibach

Bernd Loewen

Dr Stefan Peiß

Executive Board

Dr Günther Bräunig (CEO from 1/1/2021 until 30/9/2021)

(Co-CEO 01/10/2021 until 31/10/2021) (until 31/10/2021)

Dr Ingrid Hengster (until 31/12/2021)

Melanie Kehr

Christiane Laibach (since 1/6/2021)

Bernd Loewen

Dr Stefan Peiß

Stefan Wintels (Co-CEO 1/10/2021 until 31/10/2021)

(CEO since 1/11/2021) (since 1/10/2021)

Directors

Tim Armbruster

Dr Stefan Breuer

Jörg Brombach

Andreas Fichelscher

Dr Lutz-Christian Funke

Helmut Gauges

Werner Genter

Dr Karsten Hardraht

Dr Andrea Hauser (since 1/9/2021)

Detlev Kalischer

Christian Krämer (since 1/9/2021)

Dirk Kuhmann

Dr Stephan Lauer

Andreas Müller

Stephan Opitz

Gaetano Panno

Dr Ralf Prinzler

Wolfgang Reuß

Matthias Schwenk

Mirko Sedlacek

Roland Siller (until 14/7/2021)

Birgit Spors

Robert Szwedo

Klaus Weirich

Eva Witt

Members of the Management Board of KfW IPEX-Bank GmbH

Klaus R. Michalak (CEO and CFO)

Markus Scheer

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

Christiane Laibach (CEO until 31/5/2021)

Roland Siller (CEO since 15/7/2021)

Monika Beck

Philipp Kreutz

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 50 years.

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 2021 for this purpose; the Audit Committee twice and the Risk and Credit Committee seven times – primarily virtually in the form of conference calls and video conferences due to the ongoing pandemic situation.



Dr Robert Habeck,
Federal Minister for Economic Affairs and Climate Action

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

- KfW's 2020 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;
- KfW's advancement towards being a digital and transformative promotional bank for a net-zero greenhouse gas future and initial integration of the COP26 decisions, the status of the creation and realisation of a fund for forward-looking technologies of up to EUR 10 billion;
- the impact of the persistent pandemic situation and ordered restrictions, as well as the steps taken under KfW coronavirus aid;
- the revision of KfW's guidelines on dealing with projects associated with uncooperative jurisdictions.

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:

- As regards **domestic promotional business** activities, the focus remained on processing the special programme for coronavirus aid, which has been extended until April 2022, in addition to the energy-efficient refurbishment programmes for buildings and the reorientation of SME promotion.
- With a view to the business sector **Promotion of developing countries and emerging economies**, the Board of Supervisory Directors looked at key issues of Financial Cooperation in a fundamentally difficult geopolitical pandemic environment, in which countries are affected to differing extents. In the **Export and project finance** business sector, the focus was on the support KfW IPEX-Bank provides to German and European investors and exporters, and for infrastructure investment in Germany and Europe.
- The Board of Supervisory Directors received regular reports on capital market development and KfW's funding status.
- The Board of Supervisory Directors also monitored KfW Group's environmental and sustainability commitment and was informed about realisation of the bank's sustainable finance concept, in particular the selected management approaches, via the sector guidelines, as well as the establishment of an impact management system to measure the carbon footprint of the KfW portfolio.

The Board of Supervisory Directors was informed at the meetings as well as quarterly, 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 2022. It acknowledged the multi-year business strategy, the risk strategy, and the IT strategies for the group and the individual group companies.

Each member of the Board of Supervisory Directors is obliged to inform the Chair of the Board of Supervisory Directors or the relevant committee about potential conflicts of interest before a resolution is made.

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

Members of the Board of Supervisory Directors attended three training events and three individual training sessions in 2021 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 filling vacant positions including in connection with the position of CEO, and resolved updated job descriptions for Executive Board roles and a temporary redistribution of responsibilities due to the domestic finance vacancy on the Executive Board from the beginning of this year. It also resolved guidelines in accordance with regulatory requirements on professional qualifications for members of the Board of Supervisory Directors and Executive Board and on dealing with conflicts of interest, and addressed the promotion of representation of the underrepresented gender on the Board of Supervisory Directors. The strategic guidelines for 2022 confirm the general alignment of KfW's business policy.

The committee was also informed about banking supervision issues, the conversion of a silent contribution of KfW at KfW IPEX-Bank, the activities of KfW Stiftung and legal disputes. It conducted an evaluation of the KfW bodies, made relevant recommendations to the Board of Supervisory Directors and passed the specified resolutions on professional qualifications. It also addressed the remuneration system for the KfW Executive Board.

The **Remuneration Committee** discussed remuneration issues relating to refilling positions on the Executive Board 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 committee reviewed and confirmed the appropriateness of the Executive Board members' remuneration and discussed the system for remunerating said members. The group-wide remuneration strategy and the assessment base for variable employee remuneration were also discussed.

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, and addressed the risk situation and the effectiveness of the risk management system. It also dealt with KfW's exposure in various countries, regions and sectors, the development and assessment of political risks in relevant areas of activity, measures to further develop the risk culture, the potential effects of regulatory measures currently under discussion, the risk profile of financing in certain sectors, and the remuneration system, with a particular focus on the IVV. It dealt with the report on shadow banks and the revised guidelines on dealing with financing in uncooperative countries. There was in-depth discussion on the current developments of the coronavirus pandemic and its impact on KfW's risk situation, with a particular view to KfW's risk-bearing capacity and the development of credit risks in the countries and sectors most affected.

The committee also addressed the process of environmental and social impact assessments and the sustainability of financing, including based on the results of mapping to the Sustainable Development Goals (SDGs). It discussed the results and key factors influencing KfW's sustainability ratings by rating agencies, as well as the status quo and the next steps for sectoral management in line with the Paris climate targets. The regulatory capital requirements of KfW, in particular the requirements under Basel IV were also repeatedly discussed. And lastly, the committee discussed 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 2020. It made corresponding recommendations to the Board of Supervisory Directors for the approval of the annual financial statements 2020 and the appointment of the auditor for 2022. Based on information supplied by the Executive Board, it evaluated the efficiency of the risk management system, the internal control system (ICS) and the internal audit system. In addition, it addressed auditor independence and quality, determined focal points of the 2021 financial statements audit and discussed the initial results of the 2021 financial statements audit (audit report part I). The committee approved the audit plan of the Internal Auditing department for 2022. It monitored banking supervisory issues and closely reviewed the banking supervisory assessments, along with the resulting measures and projects to remedy the findings.

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

Changes on the boards

Dr Günther Bräunig retired with effect from 31 October 2021 and therefore stepped down from the Executive Board. Dr Ingrid Hengster stepped down from the KfW Executive Board at her own request with effect from 31 December 2021. The Board of Supervisory Directors would like to thank Dr Bräunig and Dr Hengster for their commitment. At the proposal of the Presidial and Nomination Committee, the Board of Supervisory Directors appointed, on 24 March 2021, Christiane Laibach as member of the Executive Board with effect from 1 June 2021; on 23 June 2021, Stefan Wintels as Chief Executive Officer of KfW with effect from 1 October 2021; and on 16 December 2021, reappointed Melanie Kehr as member of the Executive Board with effect from 1 September 2022.

In accordance with Article 7 (1) no. 1 of the KfW Law, in my capacity as Federal Minister for Economic Affairs and Climate Action, I assumed the position of Chair of the Board of Supervisory Directors for 2022 from my colleague Christian Lindner, Federal Minister of Finance.

Rainer Neske joined the Board of Supervisory Directors with effect from 6 January 2021. Robert Feiger, Reiner Hoffmann, Stefan Körzell, Dr Joachim Lang, Dr Hans-Walter Peters and Helmut Schleweis were all reappointed as of this date. Edith Sitzmann stepped down effective 11 May 2021, and Dr Danyal Bayaz was appointed to the Board of Supervisory Directors effective 8 October 2021. Johannes Kahrs stepped down from the Board of Supervisory Directors with effect from 19 November 2021, Peter Altmaier, Julia Klöckner, Heiko Maas, Dr Gerd Müller, Andreas Scheuer and Olaf Scholz with effect from 8 December 2021, Sören Bartol with effect from 13 December 2021 and Michael Theurer with effect from 15 December 2021. Annalena Baerbock, Dr Robert Habeck, Steffi Lemke, Christian Lindner, Cem Özdemir and Dr Volker Wissing joined the Board of Supervisory Directors with effect from 8 December 2021. Doris Ahnen, Dr Holger Bingmann, Verena Göppert, Olav Gutting, Peter Strobel and Heike Taubert stepped down with effect from the end of the year. The Board of Supervisory Directors would like to thank the members who stepped down for their work.

The following members stepped down with effect from 31 December 2021 and were reappointed according to schedule effective 1 January 2022: Andrea Kocsis, Holger Schwannecke and Dr Martin Wansleben. The following new members were appointed to the Board of Supervisory Directors effective 1 January 2022: Dr Andreas Dressel, Prof. Dr Hans-Günter Henneke, Dr Dirk Jandura, Dietmar Strehl and Michael Richter. Katharina Beck, Verena Hubertz, Achim Post and Frank Schäffler joined the Board of Supervisory Directors after the reporting period with effect from 13 January 2022.

Annual financial statements

Ernst & Young GmbH, which was appointed auditor for financial year 2021 for the last time, has audited the annual financial statements and the management report of KfW as well as the consolidated financial statements and the group management report of KfW Group, all of which were prepared as of 31 December 2021 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 6 April 2022, 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, 6 April 2022

THE BOARD OF SUPERVISORY DIRECTORS

A handwritten signature in blue ink, appearing to read "Robert Haas". The signature is fluid and cursive, with the first name "Robert" and the last name "Haas" clearly distinguishable.

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 Energy; with effect from 8 December 2021, the Deputy Chair was held by the Federal Minister for Economic Affairs and Climate Action.

Dr Robert Habeck

Federal Minister for Economic Affairs and Climate Action
Chair
(since 1 January 2022)
Deputy Chair
(8 December 2021 – 31 December 2021)

Olaf Scholz

Federal Minister of Finance
Chair
(1 January 2021 – 8 December 2021)

Christian Lindner

Federal Minister of Finance
Deputy Chair
(since 1 January 2022)
Chair
(8 December 2021 – 31 December 2021)

Peter Altmaier

Federal Minister for Economic Affairs and Energy
Deputy Chair
(1 January 2021 – 8 December 2021)

Doris Ahnen

Minister of State at the Ministry of Finance of the State of Rhineland-Palatinate
Member appointed by the German Bundesrat
(until 31 December 2021)

Annalena Baerbock

Federal Foreign Minister
(since 8 December 2021)

Sören Bartol

Member of the German Bundestag
Member appointed by the German Bundestag
(until 13 December 2021)

Dr Danyal Bayaz

Minister of Finance of the State of Baden-Württemberg
Member appointed by the German Bundesrat
(since 8 October 2021)

Katharina Beck

Member of the German Bundestag
Member appointed by the German Bundestag
(since 13 January 2022)

Dr André Berghegger

Member of the German Bundestag
Member appointed by the German Bundestag

Dr Holger Bingmann

Former President of the Federation of German Wholesale, Foreign Trade and Services (BGA)
Representative of trade
(until 31 December 2021)

Volker Bouffier

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
(since 1 January 2022)

Ingeborg Esser

Managing Director of the Federal Association of German Housing and Real Estate Companies (GdW)
Representative of the housing industry

Robert Feiger

Chair of the Federal Executive Committee of the IG Bauen-Agrar-Umwelt (IG Bau) trade union
Representative of the trade unions
(since 6 January 2021)

Albert Füracker

State Minister at the Bavarian State Ministry of Finance and for Regional Identity
Member appointed by the German Bundesrat

Verena Göppert

Permanent Deputy of the Executive Director of the Association of German Cities
Representative of the municipalities (until 31 December 2021)

Olav Gutting

Member of the German Bundestag
Member appointed by the German Bundestag
(until 31 December 2021)

Dr Louis Hagen

Chief Executive Officer of Münchener Hypothekenbank eG
Representative of the mortgage banks

Prof. Dr Hans-Günter Henneke

Managing Member of the Executive Committee of the Federation of German Districts
Representative of municipalities (since 1 January 2022)

Reinhold Hilbers

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

Reiner Hoffmann

Chair of the Confederation of German Trade Unions (DGB)
Representative of the trade unions (since 6 January 2021)

Gerhard Hofmann

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

Dr Bruno Hollnagel

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

Verena Hubertz

Member of the German Bundestag
Member appointed by the German Bundestag
(since 13 January 2022)

Dr Dirk Jandura

President of the Federation of German Wholesale, Foreign Trade and Services
Representative of trade (since 1 January 2022)

Johannes Kahrs

Former member of the German Bundestag
Member appointed by the German Bundestag
(until 19 November 2021)

Alois Karl

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

Julia Klöckner

Federal Minister of Food and Agriculture
(until 8 December 2021)

Andrea Kocsis

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

Stefan Körzell

Member of the Federal Executive Board of the Confederation of German Trade Unions (DGB)
Representative of the trade unions (since 6 January 2021)

Dr Joachim Lang

Director General of the Federation of German Industries (BDI)
Representative of industry (since 6 January 2021)

Steffi Lemke

Federal Minister for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection
(since 8 December 2021)

Heiko Maas

Federal Minister for Foreign Affairs
(until 8 December 2021)

Dr Gerd Müller

Federal Minister for Economic Cooperation and Development
(until 8 December 2021)

Rainer Neske

Chair of the Board of Managing Directors of Landesbank Baden-Württemberg (LBBW)
Representative of industrial credit
(since 6 January 2021)

Cem Özdemir

Federal Minister of Food and Agriculture
(since 8 December 2021)

Dr Hans-Walter Peters

President of the Association of German Banks (BdB)
Representative of the commercial banks
(since 6 January 2021)

Achim Post

Member of the German Bundestag
Member appointed by the German Bundestag
(since 13 January 2022)

Michael Richter

Minister of Finance of the State of Saxony-Anhalt
Member appointed by the German Bundesrat
(since 1 January 2022)

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
(since 13 January 2022)

Andreas Scheuer

Federal Minister of Transport and Digital Infrastructure
(until 8 December 2021)

Helmut Schleweis

President of the German Savings Banks Association (DSGV)
Representative of the savings banks
(since 6 January 2021)

Svenja Schulze

Federal Minister for the Environment, Nature Conservation and Nuclear Safety
(until 8 December 2021)
Federal Minister for Economic Cooperation and Development
(since 8 December 2021)

Holger Schwannecke

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

Edith Sitzmann

Minister of Finance of the State of Baden-Württemberg
Member appointed by the German Bundesrat
(until 11 May 2021)

Dietmar Strehl

Senator for Finance of the Free Hanseatic City of Bremen
(since 1 January 2022)

Peter Strobel

Minister of Finance and European Affairs of the State of Saarland
Member appointed by the German Bundesrat
(until 31 December 2021)

Heike Taubert

Minister of Finance of the State of Thuringia
Member appointed by the German Bundesrat
(until 31 December 2021)

Michael Theurer

Member of the German Bundestag
Member appointed by the German Bundestag
(until 15 December 2021)

Dr Martin Wansleben

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

Dr Volker Wissing

Federal Minister for Digital and Transport
(since 8 December 2021)

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 are disclosed and explained on an annual basis.

KfW is a public law institution under the Law Concerning KfW (KfW Law). The 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 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, 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 24 March 2021, the recommendations of the PCGK, as adopted by the Federal Government on 16 September 2020, were and will be fulfilled to the extent applicable to KfW as a public law institution with the exception of the following recommendations.”

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, 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 the 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. As of 1 August 2014, the Executive Board requires prior approval of the Presidial and Nomination Committee regarding significant changes to responsibilities within the Executive Board.

Changes at Executive Board level in 2021 required some redistribution of responsibilities during the course of the year. Christiane Laibach succeeded Prof. Dr Joachim Nagel with effect from 1 June 2021, assuming responsibility for front office Financial Cooperation ("FC") and the two subsidiaries DEG and KfW IPEX-Bank and replacing Dr Ingrid Hengster.

Moreover, Stefan Wintels succeeded Dr Günther Bräunig with effect from 1 November 2021; Dr Bräunig stepped down from the Executive Board with effect from 31 October 2021. The two served together as Co-CEOs from 1 October to 31 October 2021, with responsibility for General Secretariat, Group Development and Economics, Legal, Internal Auditing and Financial Markets.

Both Stefan Wintels and Christiane Laibach were appointed to the Executive Board for a four-year term in 2021, in derogation of clause 5.2 of the PCGK.

Due to Dr Bräunig's planned resignation as of 31 October 2021, the Executive Board decided to temporarily redistribute the following responsibilities with effect from 1 November 2021:

- Stefan Wintels – General Secretariat, Group Development and Economics, Legal, Internal Auditing, Financial Markets, and Sustainability;
- Dr Ingrid Hengster – Domestic Finance, including the Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*) and Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*) business sectors, New Business Credit Service, Domestic Marketing and Digital Channels, and KfW Capital GmbH & Co. KG;
- Christiane Laibach – KfW Development Bank, DEG, and Export and project finance (KfW IPEX-Bank GmbH);
- Melanie Kehr – Information Technology, Transaction Management, and Central Services;
- Bernd Loewen – Accounting, Portfolio Credit Service, Organisation and Consulting, and Human Resources;
- Dr Stefan Peiß – Chief Risk Officer/Head of 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 2021, the proportion of women on the Executive Board was 50%.

As of 31 December 2021, the proportion of women in senior management (i.e. the two management levels below the Executive Board) was 26%.

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 Olaf Scholz from 1 January 2021 to 8 December 2021 and Federal Minister Christian Lindner from 8 December 2021 to 31 December 2021. There were eight female members on the Board of Supervisory Directors as of 31 December 2021.

No member of the Board of Supervisory Directors may have business or private dealings with KfW or its Executive Board members which 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.

Three 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, 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 2021, the proportion of women on the Board of Supervisory Directors was 23.5%.

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, however, declares central banking supervision regulations henceforth applicable by analogy to KfW, and subjects KfW to supervision by the German Federal Financial Supervisory Authority ("BaFin") in collaboration with the Bundesbank regarding KfW's compliance with these regulations.

The group companies KfW IPEX-Bank GmbH and DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG) are, on the other hand, credit institutions within the meaning of the KWG. KfW IPEX-Bank GmbH is subject to the provisions of the KWG in full, while DEG is only subject to it with certain restrictions. The group company KfW Capital GmbH & Co. KG 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 GmbH, KfW Capital GmbH & Co. KG 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 Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft as auditor for financial year 2021 on 18 December 2020. The appointment was based on the proposal of KfW's Board of Supervisory Directors on 1 April 2020, which was then confirmed by the Board on 15 December 2020. 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, for the first time in mid-2015 and most recently in December 2021.

Sustainability/non-financial report/fair taxation

KfW pursues sustainable corporate governance in accordance with Germany's National Sustainable Development Strategy and the UN's Sustainable Development Goals ("SDGs"). Work on the six tranSForm sub-projects will also shape 2022. KfW aims to introduce an additional sector guideline and create a greenhouse gas accounting system. In exchange with its stakeholders, KfW also continues its preparation for application of the EU taxonomy and the new EU directive on sustainability reporting.

As part of its non-financial reporting, KfW publishes its declaration of compliance with Germany's Sustainability Code (*Deutscher Nachhaltigkeitskodex* – "DNK") every two years; its Task Force on Climate-related Financial Disclosures ("TCFD") report and its human rights due diligence are published in its annual sustainability report.

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 complies with the requirements of Directive (EU) DAC 6 2018/822 on fair taxation as well as its reporting obligations in accordance with the law to implement mandatory exchange of information in the field of taxation on cross-border arrangements.

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 mission statement, 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 employable. 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 way. 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.

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

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.

Frankfurt am Main, 6 April 2022

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 KfW's group 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 operator of the electronic Federal Gazette (*Bundesanzeiger*) and disclosed in the *Bundesanzeiger*.

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

The presentation in the group management report was modified in connection with the transition to a combined management report in order to improve clarity and provide a better overview. 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.

Overview

KfW Group consists of KfW and five consolidated subsidiaries. KfW is a promotional bank of the Federal Republic of Germany – which owns 80% of KfW while the German Federal States own 20%. The institutional framework for the promotional mandate including the Federal Republic of Germany's liability for KfW's obligations is defined in the Law Concerning KfW (KfW Law).

KfW promotes sustainable improvement of economic, environmental and social conditions around the world, with an emphasis on the German economy. The focus of KfW's promotional activities is on the megatrends anchored in KfW's strategic objectives. A variety of different financing products and services address in particular the areas of climate change and the environment, globalisation, social change, digitalisation and innovation, and financing of small and medium-sized German enterprises (SMEs). The domestic promotional lending business with enterprises and private individuals is characterised by the on-lending strategy, pursuant to which KfW extends loans to commercial banks, which, in turn, lend the funds to the ultimate borrowers. KfW thus does not have its own network of branch offices. It funds its business activities via the national and international money and capital markets. The group's main operating subsidiaries are (i) KfW IPEX-Bank, which provides export and project finance, and (ii) DEG, which is active in promoting the private sector in developing countries and emerging economies. KfW Capital invests in German and European venture capital and venture debt funds, in order to strengthen venture and early growth financing in Germany.

In accordance with the business sector structure for KfW Group, the sectors and their main 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
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
Promotion of developing countries and emerging economies	<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 – Financing provided by DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH (private sector promotion)
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

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

	31 Dec. 2021 EUR in millions	31 Dec. 2020 EUR in millions
KfW, Frankfurt am Main, Germany	546,648	543,099
Subsidiaries		
KfW IPEX-Bank GmbH, Frankfurt am Main (KfW IPEX-Bank), Germany	28,860	29,617
DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne (DEG), Germany	7,310	6,286
KfW Beteiligungsholding GmbH, Bonn, Germany	3,129	3,209
KfW Capital GmbH & Co. KG, Frankfurt am Main, Germany	754	413
Interkonnektor GmbH, Frankfurt am Main, Germany	357	376
Investments accounted for using the equity method		
Microfinance Enhancement Facility S.A., Luxembourg (16.5%), Luxembourg	641	575
DC Nordseekabel GmbH & Co. KG, Bayreuth (50.0%), Germany	895	996
Green for Growth Fund, Southeast Europe S.A., Luxembourg (10.2%), Luxembourg	689	639
coparion GmbH & Co. KG, Cologne (16.4%), Germany	294	126

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

Strategic objectives 2026

KfW Group has a set of **strategic objectives** in place that define KfW's targeted medium-term positioning. This framework encompasses top-level objectives at the overall bank level and serves as a central, binding reference for the strategic orientation of all business sectors, with a five-year horizon. The strategic objectives for 2026 were adopted in 2021.

KfW's **primary objective** is sustainable promotion. It 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 eliminating market weaknesses. Putting this principle into practice, KfW strives to consistently maintain high-quality promotional activities. KfW also aims to increase the volume of new commitments in line with the growth of Germany's nominal gross domestic product. However, this principle may be overridden in exceptional situations such as the COVID-19 pandemic, to allow KfW as a promotional bank to take countercyclical action.

With regard to the principle of sustainability, KfW aims to achieve a ranking among the top five national and international promotional banks in the relevant sustainability ratings (Sustainalytics, imug, ISS ESG). In addition, the contributions of KfW's financing activities to compatibility with the UN's Sustainable Development Goals ("SDGs") and the Paris climate agreement are monitored as a part of achieving the climate goals.

Within the framework of these promotional principles, KfW finances projects relating to the following megatrends of our time: climate change and the environment (environmental share of financing > 38%), globalisation, social change, and digitalisation and innovation. In domestic promotion, KfW aims to achieve an SME ratio of > 40% in financing small and medium-sized German enterprises.

The primary objective is complemented by **secondary objectives** in the areas of profitability and efficiency, risk and capital, regulation, digitalisation and process efficiency, and customer and employee centricity. Agility is considered a fundamental prerequisite for achieving these objectives.

Internal management system

KfW 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 group-wide strategic objectives set by the Executive Board form the basis. This system of objectives serves KfW Group as a roadmap, indicating the direction in which KfW would like to develop over the next five years. It defines KfW Group's medium-term targeted positioning, and sets top-level objectives for the entire bank. The objectives are reviewed annually for relevance, completeness and aspiration level and 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. Within this strategic framework, major medium-term strategic initiatives are developed in a base case scenario by the business sectors and subsidiaries, taking into account their statutory requirements. Promised benefits (such as project efficiencies and cost reduction measures) are also considered in business sector planning. Assumptions regarding the future development of determinant factors are made based on a risks and opportunities assessment. This analysis takes into account both external factors (including market development, regulatory requirements, the competitive situation and customer behaviour) and internal factors and resources (including human and technical and organisational resources, promotional expense, primary cost planning and tied-up capital) as well as targeted earnings levels. It involves evaluation of the key business and revenue drivers for the business sectors and the group. The business sectors are also called upon to address the environmental, social and governance risks ("ESG" risks) resulting from their business model and new (strategic) initiatives. 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 and mitigated through appropriate measures. The Executive Board defines top-down objectives for each department and business sector (with regard to promotion, risk and finances) for the entire planning period based on the assessment and prioritisation of all strategic initiatives from a group perspective. Strategic group-level planning will be expanded to include business strategy scenario analysis. 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 into management-relevant parameters in new business, earnings and risk / capital. Such scenarios assist in the process of identifying potential risks and opportunities for promotional targets and KfW’s profitability and risk-bearing capacity, and enable these factors to be considered in the further planning process if necessary.

Implementation and quality assurance: The business sectors plan their new business, risks and earnings, and each department its budgets and full time equivalents (“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 Accounting. 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’s earnings position. Thus, a high and a low interest rate scenario are also 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. KfW Group has defined strategic risk objectives for factors including risk-bearing capacity and liquidity. The main risk management approaches and risk tolerance are also incorporated into the risk strategy as a basis for operational risk management. There is regular consultation with the Risk Controlling department to ensure consistency between the business and risk strategies. 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 appropriately communicated to the staff.

The adoption of the group 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 the current 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. 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, costs and earnings in respect of funding opportunities), while providing a well-founded guide to achieving planned objectives. Ad hoc issues of strategic relevance are also addressed in consultation with the group’s departments. Recommendations for action concerning potential strategy adjustments or optimising the use of resources are made as necessary to the Executive Board by means of the strategic performance report. Results of the analysis are included in further strategy discussions and the planning process. 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 operational controlling. These comprehensive detailed analyses at group, business sector and/or control portfolio level comprise earnings, cost and FTE developments and are reported to specific departments. Additionally, analyses of significant relevance to overall group performance are also presented directly to the Executive Board. The risk controlling function

has been implemented alongside strategic and operational controlling. 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 risk reporting. The Board of Supervisory Directors receives a risk report quarterly.

Alternative key financial figures used

The KfW Combined Management Report contains key financial figures that are not defined in the accounting regulations according to HGB, nor to IFRS. In its strategic objectives, KfW uses key indicators prescribed by accounting standards and supervisory regulations as well as key figures that are geared toward 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 global loans to the promotional institutions of the federal states (*Landesförderinstitute* – “LFI”) and BAföG government loans is based on 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 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 from the two business sectors *Mittelstandsbank & Private Kunden* (*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 KfW's favourable funding conditions (obtained on the strength of 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 as a supplement to the lending business (*other operating expense*).

Cost/income ratio (before promotional expense)

The cost/income ratio (before promotional expense) comprises administrative expense (excluding promotional expense) in relation to net interest and commission income before promotional expense.

The cost/income ratio ("CIR") shows costs in relation to income and is thus a measure of efficiency. To enable 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).

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 give rise to temporary net gains or losses that are offset over the term as a whole. In KfW's opinion, such temporary effects on results are not representative as they are caused solely by economically effective hedging relationships.

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.

Economic report

General economic environment

Global real domestic product (“GDP”) increased by 5.9% year on year in 2021 according to estimates by the International Monetary Fund (“IMF”). Although this marked a rise compared to the 2019 level after the decline due to the economic effects of the coronavirus pandemic in 2020, GDP nonetheless registered below the IMF forecast for 2021 issued prior to the pandemic (see table on gross domestic product at constant prices). According to the IMF’s World Economic Outlook of October 2021, global real GDP grew at a positive rate in 2021 despite recurring waves of coronavirus infections in various countries and supply chain bottlenecks. However, according to the OECD Economic Outlook of December 2021, the gap between real GDP in 2021 and that of pre-pandemic 2019 varies from country to country.

Gross domestic product at constant prices

	2021 estimate	2020	2019
Global economy*			
Year-on-year change in %	5.9	-3.1	2.8
Index (2019 = 100) based on data from January 2022	103	97	100
Index (2019 = 100) forecast based on data from January 2020	107	103	100

* The IMF aggregates the annual growth rates of 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.

The economies of the member states of the **European Economic and Monetary Union (“EMU”)** also returned to growth last year following the pandemic-induced recession. Economic output in the EMU countries measured in terms of price-adjusted GDP rose by 5.2% year on year in 2021, following a decline in 2020, which was the most significant contraction of price-adjusted GDP (-6.4%) recorded since the EMU was formed (see table on gross domestic product at constant prices, year-on-year change). The European Commission attributes the 2021 increase to the coronavirus vaccination campaigns and the gradual easing of pandemic-induced restrictions. However, disruptions in global supply chains, rising energy prices and a renewed surge in infections weighed on euro area economic activity towards the end of 2021. Price-adjusted GDP is no longer far below pre-pandemic levels in all member states, although economic recovery continues to vary between them.

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

	2021	2020	2011–2020 average	1999–2019 minimum
	in %	in %	in %	in %
Euro area	5.2	-6.4	0.5	-4.5 (2009)
Germany	2.8	-4.6	1.1	-5.7 (2009)

Against the backdrop of global supply chain bottlenecks for raw materials and intermediate products as well as the waves of COVID-19 infection, price-adjusted GDP in Germany grew by 2.8% in 2021 compared with the previous year, after shrinking by 4.6% in 2020 and having grown by 1.1% per year on average for the preceding ten years (from 2011 up to and including 2020) (see table on gross domestic product at constant prices, year-on-year change). Positive impetus for the rate of change in price-adjusted GDP was provided by price-adjusted government final consumption expenditure (+3.4%), price-adjusted gross fixed capital formation in construction (+0.5%), price-adjusted gross fixed capital formation in machinery and equipment (+3.2%) and price-adjusted gross capital formation in other products (+0.7%) in 2021. Price-adjusted final consumption expenditure stagnated (+0.0%), while the number of people in employment located in Germany remained virtually constant at 44.9 million (+0.0%) year on year in 2021. Price-adjusted domestic use rose by 1.9% overall in 2021. Net exports contributed 0.9 percentage points to the rate of change of price-adjusted GDP in 2021, with the increase in price-adjusted exports (+9.4%) exceeding that of price-adjusted imports (+8.6%). From a production perspective, price-adjusted gross value added was a positive driver for the rate of change of price-adjusted GDP in 2021 in most economic sectors, with the exception of agriculture, forestry and fishing (−2.1%), construction (−0.4%), and financial and insurance services (−0.4%).

Developments in the **financial markets** also continued to be dominated by the coronavirus pandemic in 2021. Unlike the previous year, however, markets focused on the economic recovery and related events, such as the global material and supply chain bottlenecks, and inflation. After sustained support from central banks, the changed macroeconomic environment in 2021 triggered discussions and initial decisions on the timing of the exit from the pandemic emergency purchase programmes. The US Federal Reserve, for example, announced at the December meeting of the Federal Open Market Committee (“FOMC”) that it would end net bond purchases by March 2022, and also signalled three rate hikes for 2022. The European Central Bank (“ECB”) had previously “significantly” increased its asset purchases under the pandemic emergency purchase programme (“PEPP”) in the second and third quarters of 2021, while leaving key interest rates unchanged (the deposit rate remained at −0.5% throughout 2021). The PEPP, with a total volume of EUR 1,850 billion, involves both government and corporate bonds, which can be purchased very flexibly in terms of maturity, asset class and country of origin. The ECB Governing Council resolved in December 2021 to end the PEPP asset purchases by the end of March 2022. Banks continued to be motivated to lend due to the favourable terms of the ECB’s targeted longer-term refinancing operations (“TLTRO III”) in 2021: For banks that maintain at least their eligible net lending for a certain period, the interest rate applied to all TLTRO III transactions will be 50 basis points (bp) lower than the average deposit facility rate over the same period and in no event more than −1%.

These developments have resulted in swap rates in the euro area and the USA, in particular, rising noticeably year-on-year in 2021. In contrast, euro area and US money market rates were considerably below the prior-year averages. For instance, the 3-month EURIBOR averaged −0.55% in 2021 (2020: −0.43%); the 5-year EUR swap rate averaged −0.26% (2020: −0.35%); and the yield of the 10-year German government bond was −0.31% (2020: −0.47%). In the US, the 3-month LIBOR was 0.16% on average for the year in 2021, compared with 0.65% in the previous year. The 5-year USD swap rate averaged 0.94% in 2021 (2020: 0.59%), and the yield on 10-year US Treasuries was 1.44% (2020: 0.89%). The yield curves for the EUR and the USD moved in a similar direction although at different paces as measured by the difference between the yields of 10- and 2-year government bonds. On average in 2021, the curve steepness for German government bonds was 39 bp (2020: 22 bp), whereas US government bonds climbed to 117 bp (2020: 50 bp).

Interrupted by sell-off periods at the start and in the autumn of 2021, some lasting a number of weeks, the previous year's stock exchange rally continued. The US S&P 500 index reached multiple new highs in 2021, and recorded an annual average of 4,273 points, which was 33% above the prior-year average. Germany's leading DAX 30 index stood at 15,884 points at the end of 2021. Its 2021 average of 15,209 points was around 23% above the prior-year average. The trade-weighted euro stagnated on average (against the currencies of the 18 most important trading partners outside the euro area) in 2021, and gained approximately 4% on the US dollar on an annual average for 2021 compared to the annual average for 2020.

Development of KfW Group

KfW had an exceptional promotional year in 2021. While promotional business volume declined by 21% compared to the previous year from EUR 135.3 billion to EUR 107.0 billion due to the decline in demand for coronavirus aid, KfW again exceeded the pre-pandemic promotion level (2019: EUR 77.3 billion) due to an increase in commitments in climate action and the environment.

A consolidated profit of EUR 2.2 billion for 2021, after the previous year having been adversely impacted by coronavirus pandemic effects (EUR 0.5 billion), was proof of an excellent recovery in the bank's **earnings position**, and was well above expectations (EUR 0.8 billion). The operating result before valuation (before promotional expense), in contrast, declined from EUR 1.9 billion to EUR 1.7 billion. This development was also reflected in the cost-income ratio (before promotional expense), which rose to 45.9% (2020: 41.8%) due to higher administrative expense and the overall slight decline in income from interest and commissions. This extraordinarily positive valuation result increased consolidated profit by EUR 0.8 billion (2020: EUR –1.2 billion).

Consolidated total assets rose by EUR 4.6 billion to EUR 551.0 billion in financial year 2021. This development was largely attributable to the increase in Net loans and advances by EUR 14.9 billion to EUR 438.7 billion of which EUR 5.6 billion related to the KfW Special Programme 2020. The value adjustments from macro hedge accounting trended in the opposite direction, posting a market-induced decline of EUR 7.6 billion. The volume of own issues reported under Certificated liabilities amounted to EUR 447.6 billion (31 Dec. 2020: EUR 425.3 billion). The EUR 2.4 billion increase in equity to EUR 34.2 billion was due especially to consolidated comprehensive income.

Business performance in 2021 was largely characterised by the following developments:

A. High demand for KfW products in climate change and the environment

With a promotional business volume of EUR 107.0 billion (2020: EUR 135.3 billion), the group recorded an exceptional promotional year in 2021, marked by a decline in demand for coronavirus aid and an increase in commitments in the areas of climate action and the environment.

The increased promotional business volume in energy efficiency and renewable energy totalling EUR 47.1 billion (2020: EUR 34.3 billion), which in particular comprised commitments in financing for energy-efficient housing of EUR 19.3 billion (2020: EUR 26.8 billion) and the new business in Federal Funding for Efficient Buildings (*Bundesförderung für effiziente Gebäude – "BEG"*) of EUR 15.2 billion (2020: EUR 0.0 billion), resulted in a promotional business volume in domestic business of EUR 82.9 billion (2020: EUR 106.4 billion). The decline in promotional business volume compared to 2020 was primarily due to the softened demand for coronavirus aid amounting to EUR 10.1 billion (2020: EUR 46.9 billion), of which EUR 9.1 billion (2020: EUR 44.5 billion) related to the KfW Special Programme launched by KfW as part of the government stabilisation measures for the coronavirus pandemic in 2020. The subsidiary KfW Capital made commitments totalling EUR 0.5 billion in 2021 (2020: EUR 0.9 billion).

International business commitments decreased by 18% to a promotional business volume of EUR 23.8 billion (2020: EUR 29.0 billion). In Export and project finance, the impact of the COVID-19 pandemic on global trade and large areas of the global economy as a whole continued to be reflected in new business, with commitments amounting to EUR 13.6 billion compared to EUR 16.6 billion in 2020. Commitments in Promotion of developing countries and emerging economies also decreased to a volume of EUR 10.1 billion (2020: EUR 12.4 billion), while DEG commitments of EUR 1.5 billion recorded a positive development in new business (2020: EUR 1.4 billion).

KfW raised EUR 82.6 billion in the capital markets to fund its business activities (2020: EUR 66.4 billion). Funding via the government-owned Economic Stabilisation Fund (*Wirtschaftsstabilisierungsfonds – "WSF"*) and the targeted longer-term funding of the Eurosystem via TLTRO III of EUR 3.0 billion and EUR 1.4 billion, respectively, was lower than in the previous year (EUR 39.0 billion and EUR 13.4 billion, respectively).

Promotional business volume of KfW Group

	2021	2020
	EUR in billions	EUR in billions
Domestic business	82.9	106.4
Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	73.0	86.3
Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	9.5	19.2
KfW Capital	0.5	0.9
Financial markets	0.5	0.4
International business	23.8	29.0
Export and project finance	13.6	16.6
Promotion of developing countries and emerging economies	10.1	12.4
Volume of new commitments¹⁾	107.0	135.3

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

B. Operating result exceeds expectations

At EUR 1,712 million (2020: EUR 1,855 million), the Operating result before valuation (before promotional expense) was 8% below prior-year level and exceeded the target by 5%. The outperformance was primarily due to the increase in net commission income (before promotional expense) from EUR 584 million to EUR 634 million, which was 11% above target. At EUR 1,452 million, Administrative expense (before promotional expense) was still below plan, despite exceeding the previous year's figure by EUR 122 million. Reasons include an increase in personnel and a rise in costs of external service providers in domestic and international business and in the change environment. Net interest income (before promotional expense) of EUR 2,531 million reached the target level but declined by 3% compared with the previous year (EUR 2,601 million) due to the persistent low interest environment. Nevertheless, net interest income still constituted the main source of KfW's income.

C. Positive risk provisions for lending business following the previous year's negative impact

Risk provisions for lending business yielded positive earnings contributions of EUR 196 million in 2021. Risk provisions for lending business thus posted a considerably better result than in the previous year, which had been negatively impacted by the coronavirus pandemic (EUR -777 million), and than the projected standard risk costs (EUR -550 million). Reversal effects from risk provisions created in the previous year, in particular, contributed to this positive development. These were due to reduced provisions for latent risks in stages 1 and 2 based on the macroeconomic environment assessment, which was more favourable than that of the previous year. Reversals of risk provisions for stage 3 for individual impaired loans and income from recoveries of loans previously written off also contributed to the positive risk provisioning result.

Moreover, effects from further development of the loss given default ("LGD") procedure, and rating upgrades, which largely result from the further developed rating procedure as well as from the improved macroeconomic environment, also had a positive impact. These effects are primarily reflected in the business sector Promotion of developing countries and emerging economies.

D. Record result in the equity finance business

The group generated an unusually high result of EUR 766 million (2020: EUR -281 million) from the valuation of the entire equity investment portfolio, which exceeded the target many times over. A positive development of EUR 211 million is due to reversals of impairment losses after the negative effects from the coronavirus pandemic in the previous year. Of this amount, EUR 197 million is attributable to DEG. The business sector Promotion of developing countries and emerging economies made the largest contribution in an amount of EUR 454 million to the overall result from the equity investment valuation, with EUR 424 million attributable to the DEG portfolio (of which EUR 140 million was attributable to foreign currency translation). In addition, the KfW Capital equity investment portfolio performed very well, with a value increase of EUR 211 million. Overall, EUR 68 million of the equity investment result was attributable to gains realised from the disposal of investments and EUR 698 million to the carrying amount result.

E. Increased promotional expense despite persistent low interest environment

KfW's domestic promotional expense, which has a negative impact on the group's earnings position, amounted to EUR 188 million in 2021, compared with EUR 88 million in 2020, but was still considerably below target (EUR 364 million) due to the low-interest environment. This development resulted largely from the rise in interest rate reductions to EUR 144 million (2020: EUR 54 million), following the introduction of negative funding rates for financing partners in the on-lending promotional business as of 1 July 2021. The reasons were extensive IT system modifications at both KfW and the on-lending institutions. This implementation enables KfW to regain scope for interest rate reductions, which was heavily limited in the persistent low interest environment.

The following key figures provide an overview of key financial figure development in financial year 2021:

Key financial figures of KfW Group

Key figures of the income statement	2021	2020
	EUR in millions	EUR in millions
Operating result before valuation (before promotional expense)	1,712	1,855
Operating result after valuation (before promotional expense)	2,575	691
Promotional expense	188	88
Consolidated profit	2,215	525
Cost-income ratio (before promotional expense) ¹⁾	45.9%	41.8%
Key economic figures	2021	2020
	EUR in millions	EUR in millions
Consolidated profit before IFRS effects	2,354	633
Key figures of the statement of financial position	31 Dec. 2021	31 Dec. 2020
	EUR in billions	EUR in billions
Total assets	551.0	546.4
Volume of lending	564.2	543.1
Volume of business	686.9	674.1 ²⁾
Equity	34.2	31.8
Equity ratio	6.2%	5.8%

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).

²⁾ The comparative figure was adjusted by EUR 332 million for full recognition of all trust activities.

Comparison with the previous year's forecast

	2020 forecast for 2021	2021 actual
New business		
Promotional business volume	EUR 81.0 billion	EUR 107.0 billion
Funding	EUR 70–80 billion	EUR 82.6 billion
Result		
Consolidated profit	EUR 0.8 billion	EUR 2.2 billion
Net interest income (before promotional expense)	EUR 2.5–2.6 billion	EUR 2.5 billion
Low interest environment	detrimental	detrimental
Net commission income (before promotional expense)	EUR 0.6 billion	EUR 0.6 billion
Administrative expense (before promotional expense)	EUR 1.5 billion	EUR 1.5 billion
CIR (before promotional expense)	48%	46%
Risk provisions for lending business	EUR –0.6 billion	EUR +0.2 billion
Valuation result	approx. EUR +0.1 billion	EUR +0.6 billion
Promotional expense	EUR 0.4 billion	EUR 0.2 billion

The main differences between the forecasts from the Financial Report 2020 and the actual business development in 2021 are presented in the Economic report.

Development of earnings position

The earnings position in 2021 was characterised by a year-on-year decrease in the operating result combined with a positive valuation result. This resulted in a consolidated profit of EUR 2.2 billion, which was above both the prior-year figure (EUR 0.5 billion) and the target (EUR 0.8 billion).

Reconciliation of internal earnings position (before promotional expense) with external earnings position (after promotional expense) for financial year 2021

	Reconciliation			
	EUR in millions	EUR in millions	EUR in millions	
Net interest income (before promotional expense)	2,531	-144	2,386	Net interest income
Net commission income (before promotional expense)	634	-12	623	Net commission income
Administrative expense (before promotional expense)	1,452	14	1,466	Administrative expense
Operating result before valuation (before promotional expense)	1,712	-170	1,542	Operating result before valuation
Risk provisions for lending business	196	0	196	Net gains/losses from risk provisions
Net gains/losses from hedge accounting	-110	0	-110	Net gains/losses from hedge accounting
Other financial instruments at fair value through profit or loss	767	0	767	Net gains/losses from other financial instruments at fair value through profit or loss
Securities and investments	-4	0	-4	Net gains/losses from disposal of financial assets at amortised cost
Net gains/losses from investments accounted for using the equity method	14	0	14	Net gains/losses from investments accounted for using the equity method
Operating result after valuation (before promotional expense)	2,575	-170	2,405	Operating result after valuation
Net other operating income (before promotional expense)	-34	-18	-53	Net other operating income or loss
Profit/loss from operating activities (before promotional expense)	2,541	-188	2,353	Profit/loss from operating activities
Promotional expense	188	-188	0	-
Taxes on income	137	0	137	Taxes on income
Consolidated profit	2,215	0	2,215	Consolidated profit
Temporary net gains/losses from hedge accounting	-139		-139	Temporary net gains/losses from hedge accounting
Consolidated profit before IFRS effects	2,354	0	2,354	Consolidated profit before IFRS effects

Reconciliation of internal earnings position (before promotional expense) with external earnings position (after promotional expense) for financial year 2020

		Reconciliation		
	EUR in millions	EUR in millions	EUR in millions	
Net interest income (before promotional expense)	2,601	-54	2,547	Net interest income
Net commission income (before promotional expense)	584	-11	573	Net commission income
Administrative expense (before promotional expense)	1,330	12	1,342	Administrative expense
Operating result before valuation (before promotional expense)	1,855	-76	1,778	Operating result before valuation
Risk provisions for lending business	-777	-5	-781	Net gains/losses from risk provisions
Net gains/losses from hedge accounting	16	0	16	Net gains/losses from hedge accounting
Other financial instruments at fair value through profit or loss	-428	0	-428	Net gains/losses from other financial instruments at fair value through profit or loss
Securities and investments	-6	5	-1	Net gains/losses from disposal of financial assets at amortised cost
Net gains/losses from investments accounted for using the equity method	31	0	31	Net gains/losses from investments accounted for using the equity method
Operating result after valuation (before promotional expense)	691	-76	614	Operating result after valuation
Net other operating income (before promotional expense)	-2	-12	-14	Net other operating income or loss
Profit/loss from operating activities (before promotional expense)	688	-88	600	Profit/loss from operating activities
Promotional expense	88	-88	0	-
Taxes on income	76	0	76	Taxes on income
Consolidated profit	525	0	525	Consolidated profit
Temporary net gains/losses from hedge accounting	-109	0	-109	Temporary net gains/losses from hedge accounting
Consolidated profit before IFRS effects	633	0	633	Consolidated profit before IFRS effects

At EUR 1,712 million (2020: EUR 1,855 million), the **Operating result before valuation (before promotional expense)** was below the prior-year level but above the target (EUR 1,628 million).

At EUR 2,531 million, **Net interest income (before promotional expense)** decreased compared to the 2020 figure (EUR 2,601 million). While interest margin income developed positively, the structure contribution failed to reach the target due to market conditions, which were characterised by the low interest environment and a flat yield and cost curve.

Net commission income (before promotional expense) amounted to EUR 634 million, which exceeded the 2020 figure (EUR 584 million) and expectations (EUR 571 million). This development was mainly due to the increase in cost-based remuneration for the implementation of the promotional programmes for the Federal Government to EUR 362 million (2020: EUR 339 million), primarily in energy efficiency and renewable energy including charging infrastructure. Remuneration for administration of German Financial Cooperation ("FC") also increased, to EUR 229 million (2020: EUR 217 million). The remuneration from the Federal Government was offset by related administrative expense.

Administrative expense (before promotional expense) increased from EUR 1,330 million to EUR 1,452 million, but was lower than expected (EUR 1,477 million). Personnel expense amounted to EUR 842 million, which is above the previous year's figure of EUR 770 million. This increase was largely due to an FTE increase that turned out to be lower than expected. Non-personnel expense (before promotional expense) rose to EUR 610 million (2020: EUR 560 million). This development resulted from the increased use of external service providers compared to the previous year, including for KfW's digitalisation and more stringent regulatory requirements applicable to IT.

The cost-income ratio before promotional expense increased to 45.9% (2020: 41.8%), mainly due to the increase in administrative expense and the overall decline in operating income. Adjusted for income and expenses from products for which cost-based remuneration has been agreed with the Federal Government, the cost-income ratio for 2021 amounted to 33.3% (2020: 30.0%).

KfW Group's **risk provisions for lending business** generated net income of EUR 196 million in 2021 (2020: net expense of EUR 777 million), due among other things to the improved macroeconomic environment and recoveries on loans previously written off, after the previous year was impacted by the economic effects of the global coronavirus pandemic. The subsidiary DEG in the business sector Promotion of developing countries and emerging economies, and the business sector Export and project finance were the main contributors to the positive result.

Net additions to the provision for imminent credit risks (stage 3) including direct write-offs decreased by EUR 395 million year on year to EUR 8 million (2020: EUR 403 million). Net additions primarily related to DEG, in the amount of EUR 53 million (2020: EUR 95 million), and to the business sector Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*) in the amount of EUR 47 million (2020: EUR 80 million), of which EUR 37 million was attributable to education financing (2020: EUR 67 million). The business sector Export and project finance, in contrast, recorded net reversals of EUR 74 million (2020: additions of EUR 212 million), affecting the aviation industry in particular.

Net reversals of risk provisions in stage 1 of EUR 224 million (2020: net additions of EUR 63 million) as well as the decline in net additions in stage 2 of EUR 350 million to EUR 82 million reflected effects from lower probabilities of default due to the improved macroeconomic environment, further developed rating procedures and related transfers back to stage 1 in some cases. These effects were observed across countries and sectors, with the most significant reversals undertaken in the banking environment and for SMEs and start-ups. Further development of LGD procedures also led to effects contributing to reduced risk provisioning. In contrast, effects contributing to increased risk provisioning came from renewed forbearance measures in the cruise ship industry, which led to further stage transfers and additions to risk provisions in stage 2. Overall, existing risks from the general development of countries and sectors were considered on an individual basis as of 31 December 2021. Persisting uncertainties as of the reporting date due to the development of the pandemic were also addressed in this process.

Environmental, Social and Governance ("ESG") risks do not present any new risks for KfW to take into account, as Risk Management already addresses ESG risks in the context of borrower ratings, credit assessments and portfolio analyses as part of the group's risk strategy. These risks are therefore already reflected in risk provisions for the lending business; they did not have a material impact on the determination of any individual risk provisions.

Furthermore, at EUR 83 million, income from recoveries of loans previously written off was above that of the previous year (EUR 60 million). Of this amount, EUR 40 million was attributable to the business sector SME Bank & Private Clients and EUR 26 million to the business sector Export and project finance.

Risk provisions decreased to EUR 2.0 billion in financial year 2021 (2020: EUR 2.3 billion), of which EUR 1.4 billion was related to provisions for imminent risks in stage 3 (2020: EUR 1.3 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 0.3 billion.

The **net gains/losses from hedge accounting and other financial instruments at fair value through profit or loss** amounted to EUR 657 million (2020: EUR -412 million) and, in financial year 2021, were primarily driven by positive valuation effects from the equity investment portfolio, which were partly offset by purely IFRS-related effects from the measurement of derivatives used for hedging purposes.

The positive development of the equity investment portfolio measured at fair value through profit or loss was due to both the reversals of impairment losses taken on the valuation discounts as a result of the COVID-19 pandemic in the previous year, and further value increases. This development was also driven by exchange rate-induced increases in value, particularly due to the appreciation of the US dollar. Overall, the valuation resulted in income of EUR 752 million (2020: expense of EUR 312 million), largely due to the activities in the business sector Promotion of developing countries and emerging economies, with positive valuation effects of EUR 448 million (2020: EUR -380 million). Of DEG's income of EUR 424 million, EUR 140 million was attributable to exchange rate-induced increases in value. In addition, the KfW Capital equity investment portfolio posted a value increase of EUR 194 million (2020: EUR 42 million).

The result from foreign currency translation amounted to EUR –11 million (2020: EUR –5 million).

Hedge accounting and borrowings recognised at fair value, including derivatives used for hedging purposes, resulted in net expenses of EUR 139 million (2020: EUR 109 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 a balanced result (2020: EUR –5 million).

In the case of securities not carried at fair value, developments in the financial markets resulted in a net positive difference of EUR 98 million between the carrying amount and the fair value (2020: EUR 48 million). This development is partly attributable to increases in the value of covered and government bonds.

There were **net gains** of EUR 10 million (2020: EUR 30 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 14 million to the result. This was primarily due to value increases in the business sector KfW Capital.

Net other operating income (before promotional expense) was EUR –34 million, which was down on the previous year's figure (2020: EUR –2 million). This item also includes expenses of EUR 13 million from the increase in KfW Stiftung's foundation capital.

At EUR 188 million in 2021, KfW's domestic **promotional expense**, which has a negative impact on KfW Group's earnings position, was above the prior-year level (EUR 88 million) but below projections (EUR 364 million), due to the low-interest environment.

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. The volume of interest rate reductions was EUR 144 million in financial year 2021, which was above the prior-year figure (EUR 54 million) but below the projected figure (EUR 330 million). The increase in interest rate reductions was the result of passing on negative funding rates to KfW financing partners from the third quarter 2021 onwards, which led to an increase in demand for promotional loans at reduced rates.

In addition to its lending business, KfW provided promotional grants, in particular for the Climate action campaign and the ERP Digitalisation and Innovation programmes, totalling EUR 18 million in financial year 2021 (2020: EUR 12 million), which were recognised as promotional expense in Net other operating income.

Moreover, promotional expenses reported in net commission income and administrative expense were incurred in an amount of EUR 26 million (2020: EUR 23 million). This spending was aimed, among other things, at the sale of KfW's promotional products.

Accounting for the net income tax result of EUR –137 million (EUR 2020: EUR –76 million), the **consolidated profit** of EUR 2,215 million was higher than in the previous year (EUR 525 million) and above expectations of EUR 793 million.

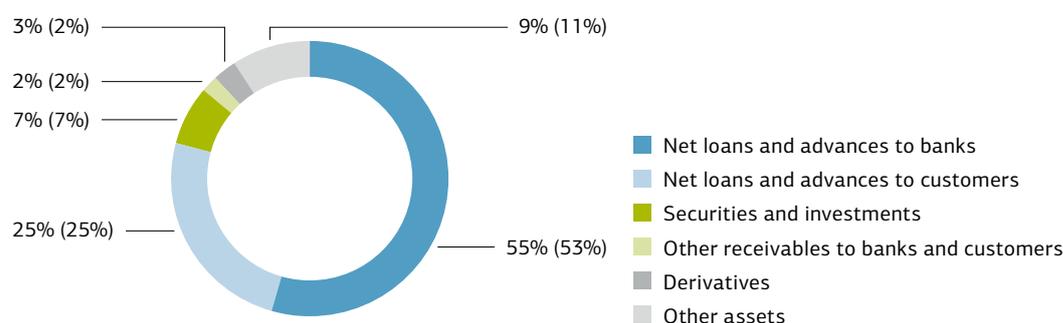
Consolidated profit before IFRS effects from hedging is another key financial figure based on Consolidated profit in accordance with IFRS to reflect the fact that KfW uses derivative financial instruments solely for hedging purposes. Under IFRS, the requirements for the recognition and valuation of derivatives 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 –139 million (2020: EUR –109 million) were eliminated.

The reconciled earnings position amounted to a profit of EUR 2,354 million (2020: EUR 633 million). The considerable increase in consolidated profit is primarily due to the positive effects from risk provisions and the valuation of the equity investment portfolio. Accordingly, the result exceeds the sustainable earnings potential of EUR 1.0 billion.

Development of net assets

Lending to banks and customers accounted for 80% of the group's assets as of 31 December 2021 (2020: 78%).

Assets as of 31 December 2021 (31 Dec. 2020)



The **volume of lending** increased compared to the previous year, amounting to EUR 564.2 billion.

Volume of lending

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Loans and advances	440,623	425,880
Risk provisions for lending business	-1,943	-2,130
Net loans and advances	438,680	423,749
Contingent liabilities from financial guarantees	3,168	2,808
Irrevocable loan commitments	111,376	105,282
Loans and advances held in trust	10,999	11,239
Total	564,223	543,078

Loans and advances increased by EUR 14.7 billion in 2021, of which around EUR 6 billion was attributable to the KfW Special Programme 2020, with the KfW Entrepreneur Loan and KfW Instant Loan programmes, in particular, contributing a total of EUR 7.6 billion, while the coronavirus special programme "Direct participation for syndicate financing", in contrast, recorded a decline of EUR 2.5 billion. Overall, disbursements in new lending business more than compensated for unscheduled repayments (EUR 14.2 billion; 2020: EUR 11.5 billion) and scheduled repayments. At EUR 438.7 billion, Net loans and advances continued to account for 78% of lending volume.

Contingent liabilities from financial guarantees amounted to EUR 3.2 billion, an increase of EUR 0.4 billion on the prior-year figure (2020: EUR 2.8 billion). The increase in Irrevocable loan commitments of EUR 6.1 billion to EUR 111.4 billion was due to the irrevocable commitment to the Federal Government in connection with the Future Fund in the amount of EUR 8.5 billion and commitments of EUR 2.1 billion under the KfW Special Programme. The KfW Entrepreneur Loan and KfW Instant Loan programmes were the most significant drivers, with a total of EUR 5.0 billion, while the coronavirus special programme "Direct participation for syndicate financing" recorded a decline of EUR -3.2 billion. Overall, the coronavirus aid programmes recorded reduced demand in 2021. 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, decreased by EUR 0.2 billion to EUR 11.0 billion.

At EUR 8.4 billion, Other loans and advances to banks and customers were EUR 2.4 billion below the previous year's amount of EUR 10.7 billion. Of the decline, EUR 4.1 billion resulted from receivables from cash collateral in connection with collateral management in the derivatives business; short-term money market transactions, in contrast, rose by EUR 2.0 billion.

The total amount of **securities and investments**, at EUR 39.9 billion, was 3% above the previous year's level.

Securities and investments

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Bonds and other fixed-income securities	35,774	35,779
Shares and other non-fixed income securities	0	0
Equity investments	4,015	3,016
Shares in non-consolidated subsidiaries	68	48
Total	39,856	38,844

The **securities portfolio** remained virtually unchanged in financial year 2021. The portfolio of **Equity investments** and **Shares in non-consolidated subsidiaries** increased by EUR 1.0 billion to EUR 4.1 billion in 2021. This development was due, among other things, to value increases of EUR 0.7 billion, in particular in the business sectors Promotion of developing countries and emerging economies and KfW Capital.

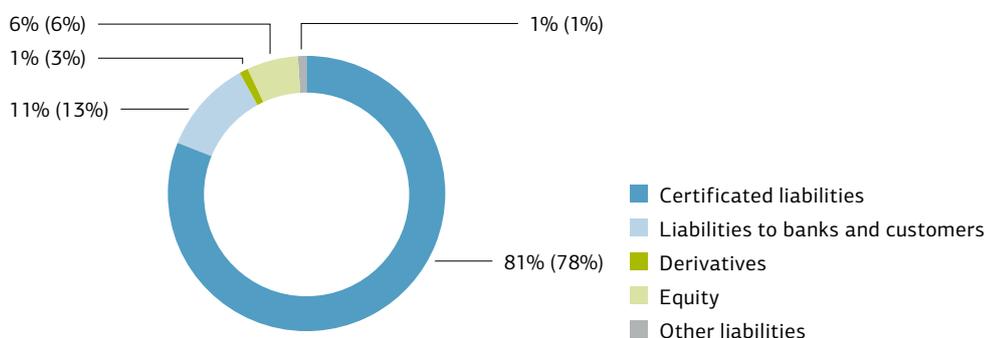
Value adjustments from macro hedge accounting declined by EUR 7.6 billion, based on fair value, from EUR 12.2 billion to EUR 4.6 billion. **Derivatives** with positive fair values, which are primarily used to hedge refinancing transactions, rose from EUR 13.3 billion in the previous year to EUR 13.9 billion. This was due to value adjustments from micro hedging increasing from EUR 7.9 billion to EUR 8.4 billion.

KfW reduced its **balances with central banks** by EUR 1.7 billion to EUR 42.4 billion. The liquidity held continues to ensure the expected servicing of coronavirus aid measures and to enable reaction 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 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". Moreover, KfW accessed funding via the government-owned WSF as part of the KfW coronavirus special programme in the reporting year. KfW significantly reduced its funding via participation in the targeted longer-term funding of the Eurosystem via TLTRO III in 2021. Accordingly, the share of total assets accounted for by funding in the form of certificated liabilities rose to 81% overall (2020: 78%).

Financial position as of 31 December 2021 (31 Dec. 2020)



Borrowings increased by EUR 9.7 billion to EUR 506.1 billion.

Borrowings

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Short-term funds	51,588	43,988
Bonds and notes	397,617	383,975
Other funding	56,854	68,394
Total	506,059	496,357

Funds raised in the form of certificated liabilities rose by EUR 22.3 billion to EUR 447.6 billion. Of this increase, EUR 13.6 billion was a result of the greater volume of medium and long-term bonds and notes issued, which remain the group's principal source of funding. At year-end 2021, such funds amounted to EUR 397.6 billion (31 Dec. 2020: EUR 384.0 billion) and accounted for 79% of borrowings. Short-term issues of commercial paper increased by EUR 8.7 billion to EUR 50.0 billion. Total short-term funds, including demand deposits and term deposits, amounted to EUR 51.6 billion, compared with EUR 44.0 billion the previous year. Some of the new funding sources tapped in connection with the KfW coronavirus special programme in 2020 were reduced. This largely resulted in the decline in Other funding of EUR 11.5 billion to EUR 56.9 billion (31 Dec. 2020: EUR 68.4 billion). In addition to the decrease of EUR 3.5 billion in promissory note loans (*Schuldscheindarlehen*) from banks and customers to EUR 40.8 billion (largely WSF funding), this also consisted of minor repurchase agreements, which declined, due to the repayment of EUR 13.4 billion (nominal) of loans under TLTRO III operation 4, by EUR 11.3 billion to EUR 2.1 billion (31 Dec. 2020: EUR 13.3 billion). In contrast, cash collateral received, which primarily serves to reduce counterparty risk from the derivatives business, increased by EUR 4.0 billion to EUR 9.0 billion (31 Dec. 2020: EUR 4.9 billion).

The carrying amounts of **derivatives** with negative fair values, which were primarily used to hedge loans, declined by EUR 7.3 billion from EUR 13.7 billion, primarily due to changes in market parameters, and amounted to EUR 6.4 billion at year-end 2021.

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

At EUR 34.2 billion, **equity** was EUR 2.4 billion above the level of 31 December 2020 (EUR 31.8 billion). The increase resulted in particular from consolidated profit (EUR 2.2 billion). The partial reversal of reserves in accordance with Section 340g of the German Commercial Code (*Handelsgesetzbuch – "HGB"*) of EUR 0.4 billion, resulted in a reclassification within Equity in accordance with IFRS, with no effect on profit or loss. The equity ratio increased year on year from 5.8% to 6.2% as of 31 December 2021, due to consolidated profit.

Equity

	31 Dec. 2021	31 Dec. 2020
	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	22,026	19,411
Fund for general banking risks	200	600
Revaluation reserves	-957	-1,151
Total	34,207	31,797

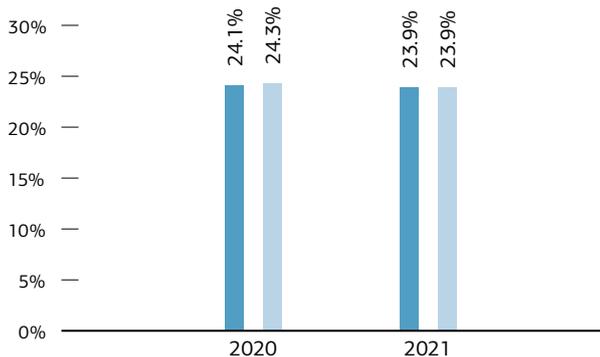
The consolidated profit was allocated to retained earnings.

Risk report

Overview of key indicators

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

Regulatory capital ratios:

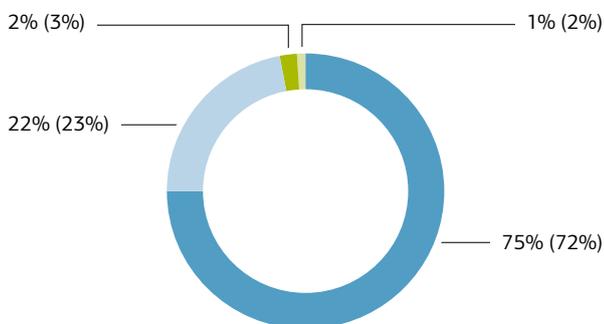


The slight drop in the capital ratios is primarily due to the implementation of CRR II (Capital Requirements Regulation), methodological adjustments (in particular the application of regulatory IRBA requirements) and the reclassification of a number of structured funds as securitisation. These effects are, however, largely compensated by the recognition of income.

■ Tier 1 capital ratio
■ Total capital ratio

Credit risk:

2021 (2020), Net exposure breakdown

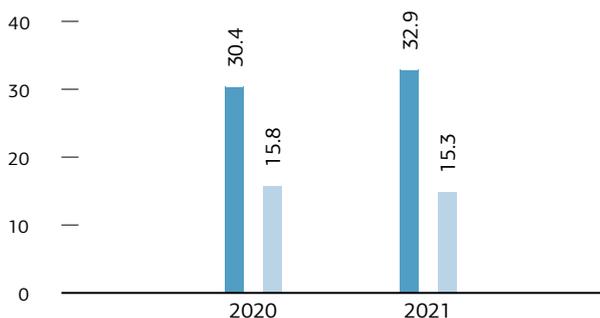


The share of investment grade net exposure increased year-on-year to 75% of total net exposure. This change is attributable to new business, particularly in the energy efficiency and renewable energy programmes.

■ Investment grade
■ Non-investment grade
■ Watch list
■ Default

Economic risk-bearing capacity:

(EUR in billions)

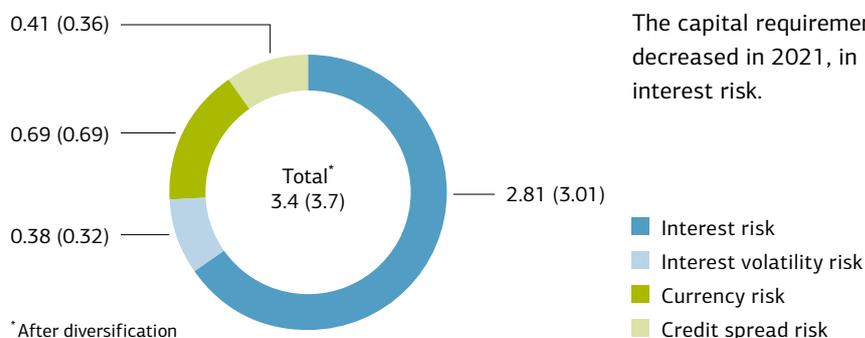


The excess coverage increased in 2021 due to the growth in available financial resources driven primarily by the annual result and the lower total capital requirement. Economic risk-bearing capacity was observed at a confidence level of 99.90% in the reporting year and improved compared to the previous year.

■ Available risk coverage resources
■ Total ECAP requirement

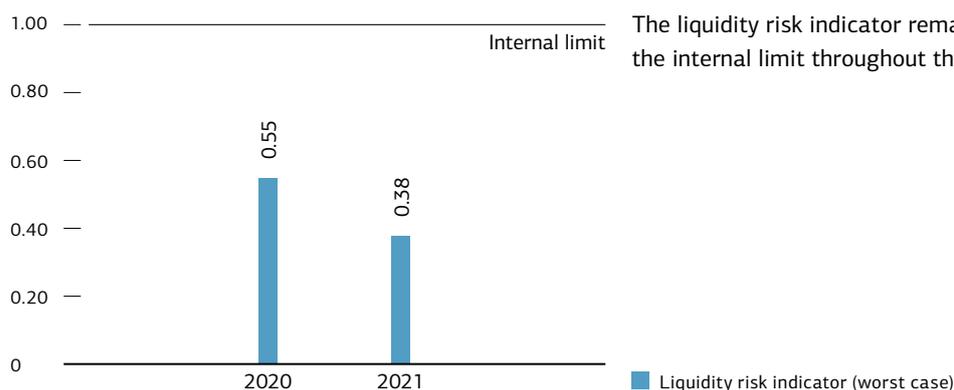
Market price risk:

2021 (2020), ECAP (EUR in billions)



The capital requirement for market price risks decreased in 2021, in particular due to the decline in interest risk.

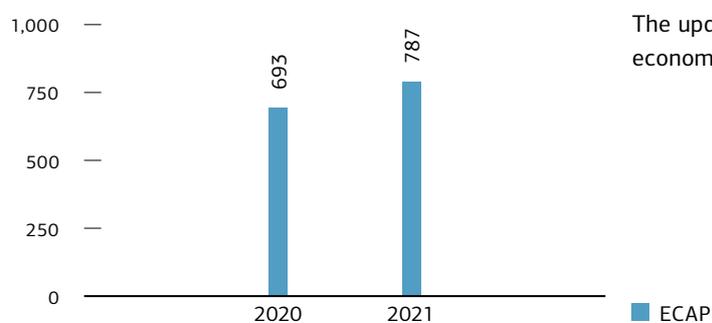
Liquidity risk:



The liquidity risk indicator remained considerably below the internal limit throughout the year.

Operational risk:

ECAP (EUR in millions)



The updating of risk scenarios led to an increase in economic capital requirements in 2021.

In financial year 2021, as in previous years, KfW Group refined the processes and instruments of its risk management and controlling, taking into account current banking supervisory requirements. A new system for calculating credit risk indicators was introduced for Pillar II, which had already been applied for Pillar I in the previous year. Furthermore, the credit risk methods for calculating the risk indicators for loss given default (LGD) and exposure at default (EAD) were further developed and adapted to reflect the new requirements set forth in EBA/GL/2017/06 (“IRBAnew”). The probability of default (PD) rating procedures were also revised, particularly for countries and corporates. Other focus areas included the expansion of the reporting systems in Risk Controlling and further development of the management of environmental, social and governance (ESG) risks 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, thereby evolving into a transformative promotional bank – in line with its mandate under the Climate Action Programme 2030 – in order to help the economy and society move towards a sustainable and net-zero greenhouse gas future.

The primary objective of KfW Group is to “transform the economy and society to improve economic, environmental and social living conditions around the world.” KfW is enhancing its ESG risk management on this basis, in order to identify and assess environmental, social and governance risks (ESG risks) even earlier in future and to take mounting regulatory requirements into account. The current focus of the project on ESG risks is on further developing ESG stress testing capabilities and designing an ESG risk database to store an assessment of ESG risks for each risk-relevant business partner in the form of an ESG risk profile. ESG risks are already addressed in risk management, particularly in the context of borrower ratings, credit assessments and portfolio analyses as part of the risk strategy.

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 and sets an example in practising it, with the desired dialogue established by means of communication with and through the relevant bodies.

Current developments

The coronavirus pandemic, which lasted throughout the financial year, continued to present a range of challenges to KfW, requiring ongoing management of the resulting implications.

As a result, the procedures already adopted in the previous year to deal with operational risks and to keep business operations up and running largely continued, with the measures being reviewed and adjusted at regular intervals based on the further course of the pandemic.

As soon as vaccines became available in the EU, KfW took measures to offer its employees vaccinations, which were very positively received. Following the emergence of another critical variant of the virus, steps were taken in the fourth quarter to continue to ensure a high level of safety for the workforce and security in business operations by offering another round of vaccinations.

As in 2020, the coronavirus pandemic shaped global economic developments in 2021. Although economic recovery emerged in most countries in 2021 following the marked slump in economic output in 2020, it varied in its intensity and speed, and is still marked by increased uncertainty in terms of stability and continuity (for reasons including the risk of new virus mutations). Those countries that had already been hit hard in 2020 – i.e. whose credit rating was already weak before the crisis, which are heavily dependent on tourism, have little fiscal leeway, have low vaccination rates or are particularly vulnerable in terms of foreign trade – remained greatly affected by the pandemic in 2021. KfW has taken account of this situation since the beginning of the pandemic and has taken steps to counteract it. The collateral requirements for new business in the public sector were increased – in some cases significantly – in many

particularly hard-hit countries from March 2020 onwards. Although most rating changes had already been made in 2020 – especially for countries in sub-Saharan Africa, the Middle East/North Africa and Latin America – countries from these regions in particular were downgraded again in 2021. These rating downgrades result in the applicable country limits potentially being reduced. This deterioration in credit quality is also having an impact on the corporate and bank ratings of counterparties in the countries concerned. In addition, a stress test was performed for countries, banks and companies to simulate the effects of a prolonged pandemic.

In general, banks around the world showed a more stable development in 2021 than in the previous year. Anomalies in the form of early warning signs (primarily increased CDS spreads and share price declines) emerged at Turkish and Brazilian banks in particular. This reflects the challenging real economic conditions resulting from the multi-faceted problems facing the two countries. In both Turkey and Brazil, however, banks have been able to cope with the situation so far, although the situation is becoming increasingly challenging.

The outbreak of the COVID-19 pandemic in 2020 prompted KfW's risk management to step up its monitoring of banking markets and individual banks. KfW continued to analyse the national banking markets, as well as the risks associated with individual banks in 2021, to determine the expected impact of the pandemic, taking government aid measures into account ("heat map"). The regular ratings for the bank portfolio required significantly fewer changes in 2021 than in the previous year. Almost 30% of the business partners/financial institutions were downgraded in 2020; only 5% of the portfolio was upgraded. The 2021 rating cycle was dominated by constant ratings (75%). The rating only deteriorated for just over 10% of the portfolio, with almost 15% showing an improvement. The process has not yet revealed any signs of crisis in individual banking markets or business models triggered by the COVID-19 pandemic.

So far, the concerted support provided by national banking supervisors and governments has mitigated the negative impact of the COVID-19 pandemic for most banks/banking markets. KfW believes, however, that the partial extensions of credit moratoria in a large number of countries remain a latent risk for future credit quality in the medium term. Serious negative effects on the corporate sector have emerged as a result of the COVID-19 pandemic. In the face of these challenges, KfW and its subsidiaries took extensive risk/portfolio and credit management measures from the very start of the pandemic. In addition to rating downgrades, these include more intensive monitoring activities, adjustments to the value of tangible collateral, reviews and, where appropriate, adjustments of the risk guidelines, risk recommendations and sector limits, and the implementation of tight control and risk reduction in critical sectors. Despite rising infection rates at the end of 2021 (Delta/Omicron variants), coupled with serious material shortages, supply chain bottlenecks and higher inflation/rapidly increasing energy prices, the situation in the corporate sector is more stable than in the previous year. As a result, significantly fewer rating downgrades had to be made in 2021 than in the first year of the pandemic. The recovery process still varies considerably from sector to sector, with certain industries hit harder by the pandemic.

The impact of the crisis on the loan portfolio is still particularly evident in sectors linked to transport and with close ties to the service industry, such as aviation (including the associated infrastructure, e.g. airports), as well as in the cruise shipping portfolio, which is largely secured by state credit insurance. These segments partly saw significant negative rating migrations, triggering an increased need for risk provisions. In addition, forbearance measures were agreed with customers primarily in the Aviation, Mobility & Transport, Maritime Industries and Resources and Recycling sector departments. In the Aviation segment, which was hit particularly hard by the crisis, the portfolio strategy adopted in 2020 for the existing business in the E&P business sector was continued, with critical exposures being reduced.

Cyclical sectors, on the other hand, which were dealt a particularly heavy blow by the pandemic-induced growth slump in 2020, such as basic industries, benefited from a strong upturn in demand and significant price increases thanks to catch-up effects, meaning that ratings in this segment improved overall.

Following the peak of the COVID-19 pandemic, global economic recovery slowed during 2021, and prospects of a return to the pre-crisis situation in 2022 have diminished. In addition to disruptions to supply and transport chains (no longer solely due to the pandemic), this trend has also been caused by indications of increasing shortages of raw materials, recyclable waste and semi-finished products in the industrial sector. These uncertainties are accompanied by rising energy prices.

This means that the projected extent and timing of economic recovery in 2022 remain rather precarious. The current escalation of the pandemic with the emergence of the Omicron variant further increases this uncertainty. There is a risk that this will exacerbate inflation due to renewed supply chain bottlenecks and encourage central banks to accelerate the shift they have embarked upon in monetary policy. As interest rates rise at a faster rate, there is a risk of diminished global growth prospects and considerable pressure on currencies in the world's emerging economies.

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.

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 the level of the Executive Board (Credit Risk Committee, Market Price Risk Committee and Operational Risk Committee) which prepare decisions for the Executive Board and also take their own decisions within their remits. The committees also perform KfW Group management functions; thus, representatives from KfW subsidiaries are also included. Internal Auditing also has the right to attend committee meetings as a guest. 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.



Credit Risk Committee

The Credit Risk Committee is chaired by the Chief Risk Officer and meets once a week. The committee's other voting members 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. In addition, current developments in the loan portfolio, including country and sector risks, are discussed on an ad hoc basis; DEG's CRO is also entitled to vote in these discussions and the managing director of KfW Capital responsible for risk issues has guest status. Once a month, the (General) Credit Risk Committee acknowledges the submissions addressed in the working groups, discusses overarching credit risk issues and makes decisions on significant adjustments in accordance with the competency matrix. These include in particular

reports and draft resolutions on the risk situation and risk management as well as on credit risk methods and principles. Reports are also made on the development of regulatory requirements, their impact and the progress of implementation projects in KfW Group. To this end, 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, approval 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

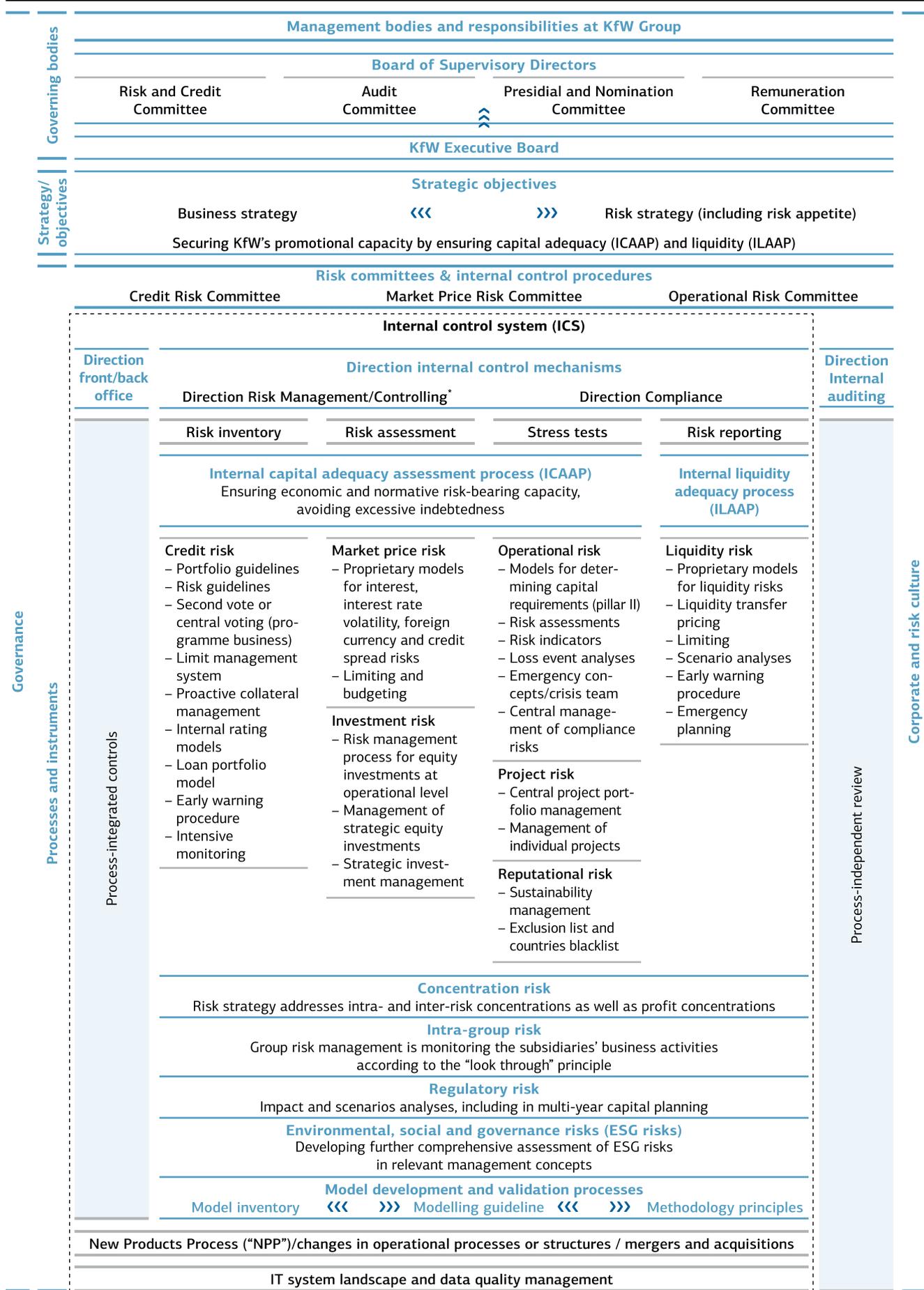
The Market Price Risk Committee meets monthly or on an ad hoc basis as required and is chaired by the Chief Risk Officer. In addition to the Chief Risk Officer, the members of the Executive Board responsible for capital markets business and finance are also represented. The members of the committee also 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, acknowledging validation reports and making decisions on recommendations resulting from validation. A decision on the matters addressed is either made directly by the Market Price Risk Working Group or prepared for referral to the Market Price Risk Committee.

Operational Risk Committee

The Operational Risk Committee meets once a quarter and provides support to the Executive Board in cross-functional management and the necessary decisions and acknowledgements in respect of operational and reputational risk, and group security including business continuity management. 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 makes decisions on group-wide management measures. Moreover, 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 business continuity management ("BCM") the committee establishes crisis-prevention and emergency-planning measures using the results of the annual business impact analysis. Monitoring is based on reports about planned or implemented emergency and crisis team tests and significant disruptions to business. 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 relating to group security and business continuity management ("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").

Additionally, the subsidiaries and organisational entities of KfW Group exercise their own control functions within the group-wide risk management system. Group-wide projects and working groups are in place to implement a group-wide 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.

Risk management approach of KfW Group (overview)



*In addition to Risk Controlling, Credit Risk Management and Transaction Management 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 danger for KfW Group's net assets, earnings and liquidity. The materiality evaluation looks at both the quantified net risk (taking existing risk mitigation instruments into account) and the gross risk. 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 2021 inventory identified that KfW Group faces the following material risks: credit, market price, liquidity, operational, equity investment, regulatory, project, reputational and intra-group risks. Risk concentrations associated with material risks either within a risk type or across various risk types are taken into account in the risk inventory. In addition, the risk inventory process involved looking at the impact of ESG (environmental, social and governance) risks and the COVID-19 pandemic 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 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 model for measuring risks for the "project risk" risk type, which is classed as material, is also subject to regular review.

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 group's internal capital adequacy assessment process ("ICAAP") is characterised by two perspectives:

The aim of the ICAAP's normative perspective is in particular the continuity of operations. To this end, the regulatory and supervisory capital requirements of Pillar I in accordance with the Capital Requirements Regulation ("CRR") and the German Banking Act (*Kreditwesengesetz* – "KWG") are to be ensured both on an ongoing basis, and in a longer-term view (normative capital planning). In addition to a base scenario, the total capital ratio is also considered in adverse scenarios. This is intended to enable early identification of any capital bottlenecks. This also takes into account potential effects resulting from risks that do not have to be explicitly backed by capital under Pillar I. Achievement of the strategic risk-bearing capacity objectives is also monitored in KfW's planning and management process. The development of the large exposure limit and the leverage ratio are monitored as further structural capital requirements.

The economic perspective of the ICAAP serves to safeguard the economic substance of the institution. This is achieved by comparing the capital available as of a reporting date (available financial resources) with the risk assumed as of the same date (economic capital requirement or ECAP for all material risks to capital). Both capital and risk figures are present value-based and static, i.e. they do not take into account new business or expected results. Available financial resources are based on regulatory capital, adjusted for impaired assets and accrued profits. The amount of economic capital required is largely determined by the confidence level for risk measurement. The multi-year capital planning process does not include a 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.

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.

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.

Budgets based on total risk exposure in accordance with Art. 92 CRR at the level of each business sector/area are taken into account to ensure risk-bearing capacity. The allocated budgets are available to the business sectors/areas for backing existing and new business for the various types of risk. Capital allocation is conducted as part of KfW Group's annual business sector planning process. In addition to the requirements induced by business sector and area planning, this process also takes into account the risk objectives and the bank's risk appetite. Budget compliance is checked on a monthly basis and action is taken, if necessary. Moreover, economic capital budgets are set for material risk types as their central control and limit variable, and are monitored monthly.

Normative risk-bearing capacity

Key regulatory figures

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Total risk exposure in accordance with Art. 92 CRR	135,135	124,237
– Credit risk	127,261	116,690
– Market price risk	2,488	2,234
– Operational risk	5,386	5,313
Regulatory capital	32,335	30,129
– (Common equity) tier 1 capital	32,279	29,896
– Additional tier 1 capital	0	0
– Tier 2 capital	57	233
CET1 ratio	23.9%	24.1%
Tier 1 capital ratio	23.9%	24.1%
Total capital ratio	23.9%	24.3%

KfW calculates the total risk exposure for significant parts based on an IRBA. The drop in the capital ratio is primarily due to the CRR II implementation, methodological adjustments (in particular the application of regulatory IRBA requirements) and the reclassification of a number of structured funds as securitisation. At 23.9%, the total capital ratio at year-end 2021 remained above the overall capital requirement. The impact of the macroprudential measures announced on 12 January 2022 (increase in the domestic countercyclical capital buffer and addressing specific risks from residential real estate financing) on KfW Group is expected to be low. The KfW portfolio does not contain any material exposure secured by residential properties, as the housing-related programmes are concluded as part of on-lending business and are secured by final-borrower assignments. According to the current impact analysis, the increase in the countercyclical capital buffer in Germany by 0.75 percentage points will increase the capital requirements by 0.2 percentage points from 1 February 2023.

Minimum requirements for total capital ratios

	31 Dec. 2021	31 Dec. 2020
Total SREP capital requirements (TSCR)	12.5%	13.0%
Capital conservation buffer	2.5%	2.5%
Countercyclical capital buffer	0.08%	0.03%
Other systemic buffer	1.0%	0.66%
Overall capital requirement (OCR)	16.1%	16.2%

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. The basis for available financial resources is regulatory capital in accordance with Art. 25–91 (Part Two) CRR, which is adjusted for previously unrecognised accrued profits, hidden burdens on securities, some capital deduction items and any tier 2 capital that may be available.

KfW Group bases its calculation of the economic capital requirement on a time frame of one year. The economic capital requirement for various types of risks is aggregated by adding them up, with no allowance made for diversification effects.

Credit risk is the risk of losses 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 credit valuation adjustment risk (“CVA” risk) in relation to derivative exposures. The economic capital requirement for credit risk is quantified by the Risk Controlling department, largely with the help of statistical models. For counterparty and migration risks, the loss potential is computed using a loan portfolio model and the risk measure of “credit value-at-risk”. The difference between credit value-at-risk and expected loss is referred to as the economic capital requirement. 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.

Since January 2021, the economic capital requirement for equity investments at operational level has been measured using a new approach in order to take account of possible fluctuations in the value of the positions and thereby also to meet the corresponding requirements set out in the Bundesbank guideline “Supervisory assessment of bank-internal capital adequacy concepts and their integration into the overall performance and risk management processes (ICAAP) – Updated version” (2018) [1] para. 57.

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 value-at-risk (“VaR”), which takes into account diversification effects between the various sub-types 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 projects and building blocks (agile implementation units used to bundle IT further development activities) and general assumptions about potential losses in the project portfolio are included in risk measurement. The building blocks consist of mixed teams of IT and departmental staff.

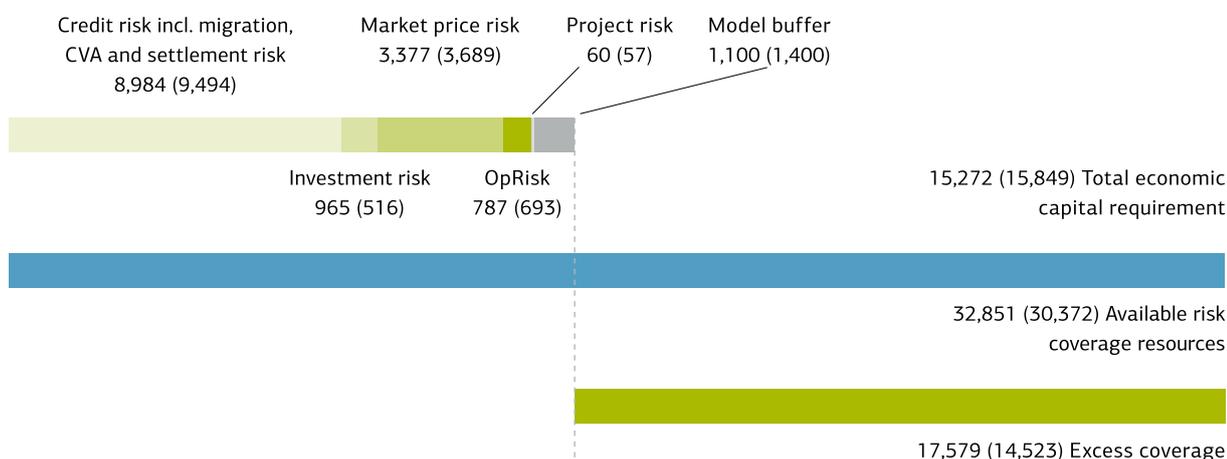
In addition, as a central result of the annual ICAAP adequacy assessment, a **model buffer** was applied to cover model weaknesses and foreseeable methodological changes in economic risk-bearing capacity.

Using this method, the economic risk-bearing capacity as of 31 December 2021 satisfied a confidence level of 99.90%. The excess coverage of the available financial resources beyond the total capital requirement as of 31 December 2021 of EUR 17,579 million increased compared to the previous year’s figure (EUR 14,523 million). This is primarily due to the increase in available financial resources, which were driven in particular by the accrued consolidated comprehensive income for 2021. In addition, the capital requirement is lower, especially for credit and market price risks. The lower capital requirement for credit risks is primarily due to a fundamental change in the system and methodology used for credit risk measurement. The capital requirement for market price risks decreased due to lower interest risks as

a result of the hedging of the non-strategic position in the euro interest rate book. By contrast, the capital requirement for equity investment risk increased as a result of the introduction of a new value-based risk measurement system. The capital requirement for operational risk also increased, in particular due to updates to the risk scenarios included in the model. The model buffer was reduced during the year, for reasons including the implementation of enhanced credit risk methods and equity investment risk measurement.

Economic risk-bearing capacity as of 31 December 2021

EUR in millions



In brackets: figures as of 31 December 2020

The Group manages **liquidity risks** primarily on the basis of internal risk indicators. 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 additionally 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.

Reputational risks are evaluated and managed on a qualitative basis. No capital backing is currently provided as part of calculating risk-bearing capacity. The materiality of reputational risk is primarily due to the fact that KfW is a government-owned institution and as such, is subject to corresponding expectations in terms of ethics, governance and compliance standards. Materiality is thus not based on observed or potential decreases in KfW Group's net assets, earnings or liquidity.

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 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 continues to develop 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, KfW Group monitors, on a quarterly basis, different scenarios (baseline or expected scenario), a downturn scenario (slight economic slowdown) and a stress scenario (deep recession) as well as their respective effects on risk-bearing capacity. These analyses demonstrate the group's resilience and ability to act in the event of the occurrence of one of these scenarios. The baseline and stress scenarios also take the leverage ratio into account.

The baseline scenario includes projected business performance, expected consolidated comprehensive income, and other effects influencing normative risk-bearing capacity, such as foreseeable changes in the capital structure and methodological developments. 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 simulate adverse effects of varying severity on earnings and changes in capital requirements during the forecast period (in the economic perspective directly related to risk-bearing capacity as of the balance sheet date) extending beyond the negative effects expected in the baseline scenario. The stress scenario assumes a prolonged and severe global recession. In both scenarios, the group assumes an extended increase in credit and equity investment risk. 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, as a result of which the economic capital requirement for the corresponding types of risk will rise. Losses from securities prices as well as from operational and project risk further reduce capital in the stress scenario.

Overall, the group meets the economic risk-bearing capacity requirements, including the confidence level of 99.90% in the scenarios analysed. The regulatory capital ratios and the leverage ratio exceed the threshold values defined for risk appetite.

Stress testing activities in 2021 focused on simulating the impact of the COVID-19 pandemic and its after-effects. The potential consequences of a sharp rise in interest rates were also analysed. In addition to the scenarios motivated by current macroeconomic risk potentials, further stress tests are regularly carried out to examine the resilience of KfW Group's economic and normative risk-bearing capacity, as well as its liquidity resources. In addition to sensitivity analyses and standard stress tests, concentration and inverse stress tests are also carried out to demonstrate how concentration risks and other potential dangers could jeopardise KfW Group's business model. A particular focus was placed on ESG risks in the banking portfolio in 2021. Furthermore, a climate stress test was conducted in 2021 to examine the transition risks in the portfolio associated with direct carbon pricing in accordance with the Net Zero 2050 strategy.

The scenario calculations and stress tests performed do not indicate any material need for action with regard to KfW Group's risk-bearing capacity or liquidity resources. With regard to the potential impact of the finalisation of Basel III, the uncertainty resulting from the draft CRR III published in October 2021 has been reduced significantly, as has the expected negative impact on the bank's normative risk-bearing capacity (incorporation of the European Commission's proposal into the standard normative risk-bearing capacity scenarios based on the assumption of continued zero-weighted exposures in the "central government" risk exposure category for EU member states, which is only applied for the Federal Republic of Germany and for public entities in Germany). The group is keeping a close eye on developments relating to the finalisation of the supervisory requirements.

KfW's stress testing programme is subject to an annual adequacy assessment, 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.

Types of risk

COUNTERPARTY DEFAULT RISK

KfW Group faces counterparty default risks¹⁾ in the context of its promotional mandate. 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.

¹⁾ Counterparty default risk is defined as the risk of financial loss that can occur if the borrower or counterparty fails to meet contractual payment obligations. Counterparty default risk also includes country risk, comprising transfer, conversion and political risks.

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 – Investment fund scoring
	Exposure at default			
Business level				
	Loss given default			
Portfolio level	Loan portfolio model			

Validation and further development processes

Counterparty default risk 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. The expected loss is taken into account when determining risk-bearing capacity by deducting it from the available financial resources in accordance with the supervisory requirements of Article 158 of the CRR.

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 scorecards²⁾ 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 special programmes for coronavirus aid. Several further developments were implemented in 2021 (including PD rating procedures for large companies [corporates] and countries). Furthermore, a risk measurement procedure was developed for internal control purposes in the form of the enhanced investment fund rating, which provides an assessment of future returns and performance in the form of a score. This procedure was also implemented in 2021. In addition to these activities, various new developments have been initiated in 2021 (including PD rating procedures for banks), which are scheduled to take effect on 31 December 2022.

The probability of default is mapped on a uniform master scale for the entire KfW Group for the 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.

²⁾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.

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, including haircuts, 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 and unexpected 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. 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.

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 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 is also required by the Board of Supervisory Directors’ Risk and Credit Committee for pre-defined, individual transaction volumes (according to rating and product type).

The portfolio guidelines distinguish between different types of counterparties and product variants and define the conditions under which business transactions may generally 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 risk concentrations (concentration limits) and credit rating-dependent individual counterparty risk (counterparty limits). Concentration limits serve to restrict risk concentrations in the loan portfolio and thus to prevent major individual losses. Counterparty limits serve to fine-tune the counterparty-specific management of credit default risk.

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 and, if necessary, to make preparations for handling these loans. This involves regularly reviewing and documenting the economic situation, the particular borrower’s market environment and the collateral provided, and formulating proposals for remedial action – particularly proposals for risk-limiting measures. For non-performing loans and also to a large extent for watch-list exposures³⁾, process responsibility lies with restructuring units, to ensure involvement of specialists 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, DEG and KfW Capital 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.

In the event of a crisis in the banking sector, the bank has to be able to act immediately both in-house and externally. A financial institution crisis plan is also in place for this purpose. It primarily provides for the establishment of a working group under the direction of the Credit Risk Management department, immediate loss analysis and implementation of the necessary next steps.

³⁾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.

**Information on default risk and default risk concentrations (gross carrying amounts)
as of 31 December 2021 – amortised cost**

		Loans and advances to banks			Loans and advances to customers ¹⁾		
		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	111,392	0	0	33,960	0	0
	Rating 5–8	144,040	0	0	24,370	0	0
Non-investment grade	Rating 9–15	34,326	243	0	34,503	4,675	0
Watch list	Rating 16–18	16,204	1,636	0	8,765	20,098	0
Default	Rating 19–20	0	0	648	0	0	4,531
Total		305,962	1,880	648	101,598	24,773	4,531

		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	21,681	0	0	41,582	0	0
	Rating 5–8	13,736	0	0	41,555	0	0
Non-investment grade	Rating 9–15	346	0	0	22,579	1,440	0
Watch list	Rating 16–18	22	0	0	3,468	3,285	0
Default	Rating 19–20	0	0	0	0	0	312
Total		35,784	0	0	109,184	4,725	312

¹⁾ Loans and advances to customers also include the retail business, for which the stage is not derived based on the current rating but on the basis of negative criteria and 30 days past due status. Risk concentrations arise in the event of negative criteria or 30 days past due status. If one of these criteria is met, the customer is placed on the watch list. In contrast, the stage 1 share of the retail segment without significant deterioration in credit risk is largely allocated to “non-investment grade”.

**Information on default risk and default risk concentrations (gross carrying amounts)
as of 31 December 2020 – amortised cost**

		Loans and advances to banks			Loans and advances to customers ¹⁾		
		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	109,584	0	0	34,580	0	0
	Rating 5–8	135,190	53	0	24,060	40	0
Non-investment grade	Rating 9–15	33,154	582	0	33,469	5,787	0
Watch list	Rating 16–18	16,082	887	0	7,961	6,647	0
Default	Rating 19–20	0	0	235	0	0	18,656
Total		294,009	1,522	235	100,069	12,474	18,656

		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	22,612	0	0	33,210	0	0
	Rating 5–8	12,639	0	0	34,857	353	0
Non-investment grade	Rating 9–15	473	0	0	28,952	3,205	0
Watch list	Rating 16–18	0	0	0	5,771	1,545	0
Default	Rating 19–20	0	0	65	0	0	257
Total		35,725	0	65	102,790	5,103	257

¹⁾ Loans and advances to customers also include the retail business, for which the stage is not derived based on the current rating but on the basis of negative criteria and 30 days past due status. Risk concentrations arise in the event of negative criteria or 30 days past due status. If one of these criteria is met, the customer is placed on the watch list. In contrast, the stage 1 share of the retail segment without significant deterioration in credit risk is largely allocated to “non-investment grade”.

Credit risks and related credit protection of financial instruments measured at amortised cost as of 31 December 2021

	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	308,251	546	13	354
Loans and advances to customers	129,197	3,293	118	2,132
Securities and investments	35,774	0	0	1
Off-balance sheet transactions	114,126	297	0	3
Total	587,348	4,136	132	2,491

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 2020

	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	295,460	167	0	69
Loans and advances to customers	129,375	17,402	127	16,164
Securities and investments	35,779	65	0	61
Off-balance sheet transactions	108,025	239	0	86
Total	568,640	17,872	127	16,381

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. The federal guarantee for the fully protected mandated transaction within the framework of the support measures for Greece in the approximate amount of EUR 15 billion is no longer included following a rating upgrade for Greece. Tangible collateral for financial instruments classified as stage 3 consists of aircraft and ship mortgages.

KfW Group did not take possession of any assets previously held as tangible collateral in 2021.

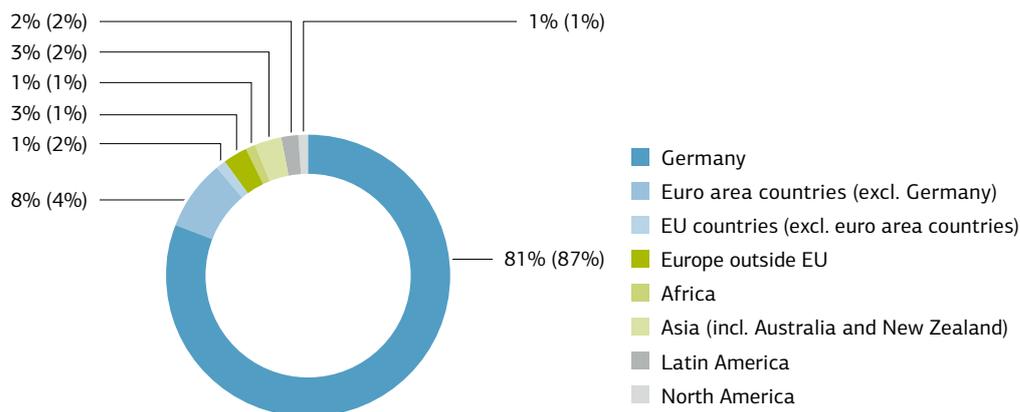
Portfolio structure

The interaction of the risks associated with the individual exposures in KfW Group's loan portfolio⁴⁾ 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.

⁴⁾ 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.

Economic capital requirement by region

31 December 2021 (31 Dec. 2020)

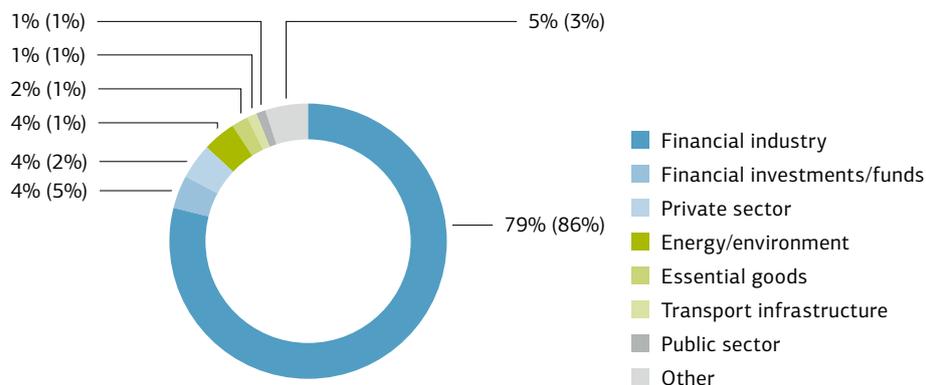


Regions

As of 31 December 2021, 89% of KfW Group's loan portfolio in terms of economic capital requirements was attributable to the euro area (31 Dec. 2020: 91%). The main driver behind the decline is the move to a new system for calculating risk indicators. This resulted in a reduction in economic capital requirements, in particular in Germany – above all in the on-lending business. Outside of Germany, new business, especially in the business sector Promotion of developing countries and emerging economies, has led to an increase in the economic capital requirement.

Economic capital requirement by sector

31 December 2021 (31 Dec. 2020)

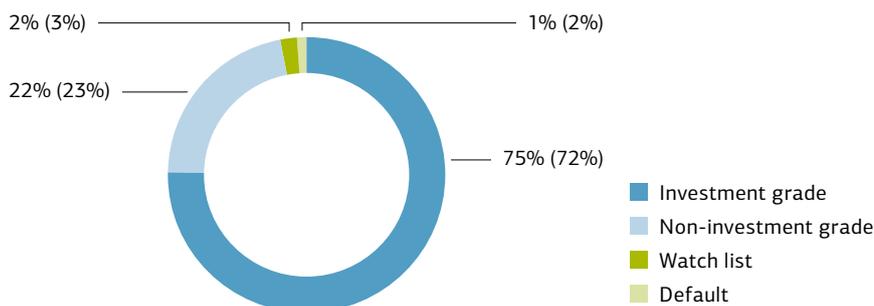


Sectors

The significant share of overall capital required for credit risks attributable to the financial sector 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. Overall, the financial sector's share of the economic capital requirement has increased in absolute terms, while in relative terms, it has fallen to 79% (31 Dec. 2020: 86%). The model adjustments already mentioned in the "Overview of key indicators" section led to a decline in the economic capital requirement. The economic capital requirement for the private sector also increased, mainly due to the model adjustments.

Credit quality by net exposure

31 December 2021 (31 Dec. 2020)



Credit quality

As credit quality is a major factor influencing economic capital requirements, analysing the credit quality structure involves examining the distribution of net exposure⁵⁾ by credit quality category. The higher proportion of investment grade exposure in total net exposure was primarily the result of new business, particularly in energy efficiency and renewable energy programmes. The share of watch list positions of 2.0% (2020: 2.9%) and the share of default positions of 1.0% (2020: 2.2%) have fallen.

Securities-based securitisations in KfW Group's portfolio

Securitisations had a par value of around EUR 6.1 billion as of 31 December 2021. 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 6.1 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. 2021	31 Dec. 2020
	%	%
Europe	99.9	99.8
World	0.0	0.0
North America	0.1	0.2
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. 2021	Total as of 31 Dec. 2020
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	2,690	1,716	950	734	6,090	6,125
Non-investment grade	0	0	0	0	0	98
Watch list	0	0	0	0	0	0
Default	0	0	0	7	7	0
	2,690	1,716	950	741	6,097	6,229

¹⁾ Auto ABS are based on receivables from automotive financing agreements (included in "Other securitisations" as of 31 December 2020).

⁵⁾ Net exposure is the economic loss that potentially occurs in the event of an economic or political default event.

The portfolio volume decreased slightly compared to the volume of 31 December 2020 (nominal value EUR –0.1 billion). The decrease relates largely 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.

MARKET PRICE RISK

KfW Group measures and manages market price risk on a present-value basis. The key drivers of market price risk in this context are:

- interest risk (consisting of the jointly analysed sub-risk types: interest risk, as well as tenor and cross-currency basis spread risks),
- interest rate volatility risk,
- foreign currency risk and
- issuer-related spreads for securities (credit spread risk).

Market price risk within the group required a total of EUR 3.377 billion in economic capital as of 31 December 2021. This is EUR 0.312 billion lower than the previous year. The change is due first and foremost to the reduction in optional risk components (reduced interest risk due to floors on loans) in the interest risk. KfW Group market price risk breaks down as follows:

Economic capital requirement for market price risk

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Interest risk ¹⁾	2,813	3,012
Interest risk	2,734	3,022
Tenor basis spread risk	282	158
Cross-currency basis spread risk	631	377
Interest rate volatility risk	384	319
Currency risk	693	693
Credit spread risk	411	358
Diversification	–925	–693
Market price risk	3,377	3,689

¹⁾ Due to diversification effects in the interest risk, the risk sub-types do not add up to the total interest risk.

Value-at-risk approach

The economic capital requirement is calculated using a value-at-risk (“VaR”) calculation across the various types of market price risk using a uniform method. Historical simulation is used as the VaR model. Historical simulation is based on market data time series comprising the previous three years (751 trading days). The uniform holding period is twelve months, with time scaling based on a one-day holding period. In addition, scaling to the target quantile (99.9%) is carried out on the basis of a 97.5% quantile determined using historical simulation.

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

Interest risk

Yield curves defined as risk factors 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. Tenor and cross-currency basis spread risks increased in 2021 due to adjustments to the risk calculation resulting from the benchmark reform. This involves a reallocation within interest risk. The increase in basis spread risks is offset by opposite effects (diversification effects) with the positions remaining unchanged, and there is no increase in interest risk as a whole. The capital requirement for interest risk decreased by EUR 199 million to EUR 2,813 million as of 31 December 2021.

Interest rate volatility risk

The interest rate volatility risk is based on changes in the market values of modelled interest rate options (e.g. termination rights or 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 Value at Risk 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 capital requirement for interest rate volatility risk was EUR 384 million as of 31 December 2021.

Currency risk

The economic capital requirement for currency positions is calculated in the same way as for interest risk, using historical simulation. The capital requirement for currency risk remained unchanged at EUR 693 million as of 31 December 2021.

Credit spread risk

Risk measurement is carried out for 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 2021 was EUR 411 million. Credit spread risk increased by EUR 53 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 (scenarios) on the present value and VaR target variables are determined by means of stress tests. The new regulatory requirements (EBA GL on IRRBB) for present value stress testing (interest rate risk in the banking book – IRRBB) are also met.

LIQUIDITY RISK

Liquidity risk is the risk of a lack of liquidity on the part of an institution or market, or of more expensive funding. Liquidity risk thus comprises insolvency risk, market liquidity risk and funding risk.

- Insolvency risk: Risk that payment obligations cannot be met, cannot be met on time or cannot be met in full.
- Market liquidity risk: Risk of (value) losses if assets cannot be traded on the market due to lack of liquidity, cannot be traded in due time, in full or in sufficient quantity or cannot be traded at prevailing market conditions.
- Funding risk: Risk of lower income due to more expensive funding (liabilities) that cannot be passed on to borrowers.

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 and the utilisation threshold under Article 4 of the KfW Law. In addition, liquidity gaps are limited based on business already concluded, available liquidity potential and the maturity gap between inflows and outflows.

INTERNAL LIQUIDITY ADEQUACY ASSESSMENT PROCESS (“ILAAP”)

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.

KfW Group prioritises management of insolvency risk. Market liquidity risk and funding risk are examined annually as part of the risk inventory; they were not classified as material as of 31 December 2021. The funding risk is limited indirectly by limiting the maturity gap. 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 2021:

KfW liquidity risk indicators

	31 Dec. 2021	31 Dec. 2020
	Indicator	Indicator
Normal case	0.20	0.45
Stress case	0.28	0.49
Worst case (institution-specific)	0.18	0.33
Worst case	0.38	0.55

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

KfW made further disbursements under special programmes for coronavirus aid on behalf of the Federal Government in 2021. Compared to the previous year, however, the volume of these disbursements was much lower and they had very little effect on the liquidity situation and liquidity risk measurement. These aspects were reflected in the liquidity risk indicators. This means that the coronavirus pandemic did not have a significant impact on the liquidity situation in 2021 either.

Current funding environment

KfW Group raised a total volume (net proceeds) of EUR 82.6 billion on the international capital markets in financial year 2021 (2020: EUR 66.4 billion).

There were 211 individual transactions, and bonds were issued in 15 different currencies. Around 81% of its long-term funding was in the two main funding currencies: the euro and the US dollar. The share of bonds denominated in euros came to 55% in 2021 (2020: 64%); while those denominated in US dollars amounted to 26% (2020: 24%). In order to fund the KfW Special Programme to support the German economy during the COVID-19 crisis, funds totalling around EUR 42 billion have been raised via the Economic Stabilisation Fund ("WSF") since the outbreak of the pandemic. The outstanding volume of funding was EUR 36.4 billion as of 31 December 2021. In early December 2021, the Federal Government and KfW extended the deadline for applications for the KfW Special Programme until 30 April 2022.

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 70 billion. While at EUR 82.6 billion, the nominal volume issued under this programme was lower in 2021 than in the previous year (EUR 96.6 billion), the average maturity of the issues was higher at 160 days (2020: 131 days). The volume outstanding on the reporting date of 31 December 2021 was EUR 37.4 billion. The programme volume of the U.S. Commercial Paper ("USCP") programme came to USD 20 billion in 2021. 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 higher than in the previous year (USD 59.9 billion) at USD 62.3 billion. The average maturity of the issues declined by two days to 66 days. The outstanding volume amounted to USD 10.3 billion as of 31 December 2021. KfW participated in the ECB's targeted longer-term refinancing operations (TLTRO) in 2021 as well, raising an additional EUR 1.4 billion in March 2021. The TLTRO funds from 2020 in an amount of EUR 13.4 billion were repaid to the ECB in December 2021.

OPERATIONAL RISK AND BUSINESS CONTINUITY MANAGEMENT

In accordance with Article 4 (1) No. 52 of the CRR, KfW Group defines operational risk as the risk of loss resulting 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. The following sub-types of operational risk are also generally defined and monitored by specialised second line of defence units: information security risk, compliance risk, legal risk, business interruption risk, payment transaction risk, service provider risk (including outsourcing risk), secondary model risk⁶⁾, personnel risk, personal and physical security risk, conduct risk and operational risk from adjustment processes.

KfW Group's organisational structure provides for a two-tier system comprising decentralised and centralised units liaising with the Operational Risk Committee. Management of risks is decentralised and performed within the business sectors and subsidiaries by the respective directors or managing directors, 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.

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

⁶⁾ Primary model risks are mapped in the original risk type (e.g. credit or market price risk).

Losses in KfW Group are recorded in an OpRisk events database and updated in the event of changes/developments. 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 scenarios in risk assessments that are carried out group-wide. Within the risk assessments, operational risk is measured on the basis of expert estimates in combination with other information such as internal loss events, which are backed by a distribution assumption for loss frequency and amount. The results of the risk assessment 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.

Losses caused by the COVID-19 pandemic that relate to operational risks are recorded bank-wide as a collective event; in addition, potential effects of the pandemic are evaluated as part of the risk assessments to ensure their inclusion in the calculation of the economic capital requirement for OpRisk.

The risk assessments were completed as planned in 2021. Updating and recalculation of the scenarios led to an increase in the ECAP for operational risks (of approx. EUR 55 million).

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

For the purpose of business continuity management, business processes are analysed and categorised based on how critical they are, and the supporting resources for each case examined accordingly. Identifying critical business processes and their dependency on supporting resources forms the basis for effective business continuity management. 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.

KfW has set up a coronavirus task force to coordinate measures addressing the pandemic. Regular meetings were held to define various measures aimed at counteracting staff outages with a negative impact on KfW's business activities, and their effectiveness was reviewed on an ongoing basis following their implementation. In order to keep business operations up and running, the measures taken included introducing split operations for critical functions (i.e. the permanent separation in terms of work location of individuals responsible for ensuring the same work process) and increasing the IT capacities required to allow employees to work from home on a large scale within a short space of time, while adhering to the applicable occupational health and safety regulations in the process.

OTHER RISKS

Equity investment risks

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

Equity investments (operational level)

Undertaking equity investments at operational level is part of the group's promotional mandate. Accordingly, there are equity investments in connection with domestic and European investment financing and in the Promotion of developing countries and emerging economies and Export and project finance business sectors. KfW's group-wide basic rules for equity investments at 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. Risk measurement is performed at an individual loan commitment level for operational level equity investments in the same way as for credit risk using models specified for this purpose. Equity investment portfolio risks are reported separately in a dedicated report as well as quarterly in the 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 accordance with 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 (*Bundeshaushaltsordnung* – "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.

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.

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.

In the risk management process, reputational risk is primarily managed in a decentralised manner. The framework for this purpose includes sustainability management with group-wide sustainability mission statement, which uses a multidimensional approach to address central areas of action in the banking business and operations and as an employer. Furthermore, examinations of new activities in the NPP as well as of outsourced activities in outsourcing management are regularly conducted to detect potential reputational risks.

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. In addition, reputational risk events that have occurred are reported on an ongoing basis.

In the context of reputational risks, no significant loss events relating to the COVID-19 pandemic have occurred to date. The reputation achieved with the launch of the special programmes for coronavirus aid remained stable for KfW throughout 2021.

Project risk

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/building blocks). Managing project risk is part of project/building block management in both the project/building block planning and execution stages.

The internal "Planning, Control and Project Management" department supports the projects and building blocks in fulfilling their objectives and achieving their targets. The "Planning, Control and Project Management" department provides scaled specifications and support services according to project and building block size. As the central authority for overall portfolio management, it provides the methodological framework for implementation of projects and building blocks within the group and is responsible for the evaluation and presentation of the risk situation of the overall portfolio for a specified number of projects and building blocks. Compliance with this framework and these requirements by the aforementioned projects and building blocks is also monitored and supported.

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 to be addressed 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 as part of capital planning and in cooperation with the owners. In this context, potential negative effects arising from the finalisation of the capital adequacy requirements under Basel III are analysed and assessed, in particular.

Moreover, KfW actively keeps track of changes in its legal environment, which makes it possible to identify new regulatory requirements and to determine any necessary action.

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) requirements⁷⁾, in particular those set forth in the KWG and MaRisk, and the market standard COSO model⁸⁾.

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.

⁷⁾ See Section 25a (1) no. 1 KWG, MaRisk AT 4.3, and Sections 289 (5), 315 (2) no. 5, 324, and 264 d HGB

⁸⁾ COSO = Committee of Sponsoring Organizations of the Treadway Commission

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 included measures to comply with data protection regulations and tax compliance, as well as measures for the prevention of insider trading (WPC), money laundering, terrorist financing (TF) and other criminal activities, as well as to comply with sanction and embargo regulations and for monitoring 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 (“NFRs”) by means of key indicators (e.g. for money laundering, other criminal activities, financial sanctions, WPC and data protection) in line with the central requirements for operational risk management.

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.

As in the previous year, KfW’s business activities relating to the COVID-19 pandemic as part of the KfW Special Programme did not result in any sustained increase in the overall risk level in the relevant compliance risk types (money laundering/terrorist financing, other criminal activities). This is due to the structural use of existing implementation channels (on-lending) and products (promotional loans).

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. Audits of key second line functions, specifically also in the compliance environment, were also part of the 2021 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 2021 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 and incorporates the audit results of the subsidiaries’ internal auditing departments in group-wide internal audit reporting.

Forecast and opportunity report

General economic environment and development trends

KfW expects global real gross domestic product (“GDP”) to grow by 4.4% year on year in 2022, after increasing by 5.9% in 2021 according to International Monetary Fund (“IMF”) estimates. The expected growth rate of global real GDP in 2022 is therefore below that of the previous year, but above the average for 2011–2020. This pattern is forecast for industrialised nations as well as for developing countries and emerging economies (see table on gross domestic product at constant prices, year-on-year change). KfW also assumes, as does the IMF, that real GDP for emerging economies and low-income countries in 2022 will be below the forecast for 2022 issued in January 2020. KfW agrees with the IMF’s assessment that country-specific prospects are primarily determined by differences in both access to COVID vaccines and the extent of economic policy support. The emergence of the Omicron coronavirus variant makes it clear that economic and health impacts of the COVID-19 pandemic will continue to be a factor in global GDP growth in 2022.

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

	2021 estimate in %	2022 forecast in %	2011–2020 average in %
Global economy*	5.9	4.4	2.8
Industrialised countries*	5.0	3.7	1.2
Developing countries and emerging economies*	6.5	4.8	4.1

* 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. Average calculated as the geometric mean of annual growth rates.

According to the IMF, there are major uncertainties regarding the further development of the pandemic, inflation and the global financial environment. The downside risks, which, if they materialise, would result in lower than forecast global real GDP growth in 2022, are clearly dominating. They include (a) the emergence of more transmissible and deadlier SARS-CoV-2 variants that could reinforce the pandemic’s spread and intensity; (b) pandemic-induced supply-demand mismatches persisting longer than expected, which could also lead to a faster-than-anticipated monetary normalisation in industrialised countries and a sudden tightening of global financial conditions due to sustained price pressures; (c) an increase in financial market volatility, for example, due to sudden and rapid shifts in investor sentiment. In addition, greater social unrest, more adverse climate shocks, cyberattacks involving critical infrastructure and the escalation of geopolitical tensions in trade and technology, notably between China and the USA, pose further negative risks. A more favourable development of global real GDP than anticipated is conceivable if, in particular, safe and effective vaccines against COVID-19 can be produced more quickly and in greater volumes on a sufficient scale worldwide, or if there is a productivity growth spurt after the pandemic has accelerated the pace of structural change in many economic sectors towards more automation and transformation of workplaces.

For the **euro area**, KfW expects price-adjusted GDP to grow by 3.6% in 2022. This means that the anticipated growth rate will decrease by 1.6 percentage points year on year, but still exceed the average of 2011–2020 many times over. If this projection proves accurate, total economic output will return to above the pre-pandemic level of price-adjusted GDP, i.e. that of 2019 (see table on gross domestic product at constant prices, year-on-year change). In line with the European Commission, KfW assumes that COVID-19 will generally not cause any major disruptions to overall economic activity in the euro area in 2022 due to the vaccination rates achieved and the fact that households and businesses have adjusted to the remaining pandemic-induced restrictions, that supply chain bottlenecks

will ease, and that energy price increases will subside. However, KfW shares the ECB's view that the economic recovery will be temporarily slowed at the beginning of 2022 due to the emergence of the Omicron strain, before price-adjusted GDP growth likely picks up speed again in the course of the year. All demand-side components of GDP are likely to make a positive contribution to price-adjusted GDP growth in 2022. This forecast is based on the European Commission's assessment that, firstly, households will increasingly demand contact-intensive services, buoyed by rising employment and increasing disposable income, and secondly, investments will benefit from the rise in demand, favourable financing terms, declining uncertainty and funds provided by the EU's Recovery and Resilience Facility. Due to the growth expected in countries that are important trading partners and the subsequent recovery of tourism, the European Commission expects exports to increase and net exports to contribute positively to growth (by 0.3 percentage points).

KfW expects price-adjusted GDP in **Germany** to increase by 3.2% year on year in 2022. After still lagging behind in 2021, price-adjusted GDP in 2022 is therefore expected to return to a higher level than in 2019, the year before the outbreak of the coronavirus pandemic (see table on gross domestic product at constant prices, year-on-year change). In view of the forecasts for the global economy described above and assuming the easing of supply chain bottlenecks for raw materials and intermediate products in the course of 2022, KfW expects that, among the base factors determining GDP, gross value added in the manufacturing sector will grow in 2022, thereby bolstering the increase in 2022 price-adjusted GDP. Price-adjusted gross value added is also expected to grow in 2022 in the retail, transport and hospitality sector as well as the other services sector, both of which have had to deal with health policy-related restrictions imposed on their business operations since the outbreak of the COVID pandemic in 2020. Among the expenditure components of GDP, KfW expects gross fixed capital formation in machinery and equipment and private consumption expenditure to achieve the greatest price-adjusted increases in 2022. The expected price-adjusted private consumption expenditure is based on the assumption that the average number of persons in employment located in Germany will increase in 2022 compared to the previous year and that the seven-day COVID case rate in Germany will again decline in the course of 2022 compared to the winter half-year 2021/2022.

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

	2021	2022 forecast	2011-2020 average	2022 forecast
	in %	in %	in %	2019 index = 100
Euro area	5.2	3.6	0.5	102
Germany	2.8	3.2	1.1	101
USA	5.7	3.8	1.6	106

Should the forecast easing of supply chain bottlenecks fail to materialise, financing conditions unexpectedly improve and restrictions be imposed on business activities again due to new coronavirus mutations, Germany could post a price-adjusted GDP growth rate below that predicted by KfW for 2022. A higher price-adjusted GDP growth rate than predicted by KfW for 2022 could primarily result from an unexpectedly rapid containment of new COVID infections and from supply chain bottlenecks easing more quickly than anticipated. Russia's attack on Ukraine on 24 February 2022 has further increased the uncertainty of our forecast. The economic impact depends on the further escalation or de-escalation steps of the military conflict, the sanctions ultimately imposed against Russia and that country's countermeasures. The effect on German and on European economic output is very difficult to assess at present. Anything is still possible – from another recession to the growth forecast in this report of 3.2%.

For the **euro area**, KfW expects the deposit rate of the European Central Bank (“ECB”) to remain at –0.50% for the whole of 2022. The ECB has responded to the COVID-19 crisis with several targeted measures, without lowering key interest rates any further. Its most important instruments include the pandemic emergency purchase programme (“PEPP”), pursuant to which securities purchases in the amount of EUR 1,850 billion are planned. The programme involves both government and corporate bonds, which can be purchased very flexibly in terms of time, asset class and country of origin until the end of March 2022. For a transition period after the expiry of the PEPP, securities purchases under the regular asset purchase programme (“APP”) are to be stepped up until October 2022. The reinvestment of principal payments at maturity of securities purchased under the PEPP has been extended until at least the end of 2024. Banks are being provided with very cheap liquidity via targeted longer-term refinancing operations (TLTRO III) until June 2022. For banks that maintain at least their eligible net lending between October 2020 and December 2022, the interest rate applied to all TLTRO III transactions from 24 June 2021 to 23 June 2022 will be 50 basis points lower than the average deposit facility rate over the same period and in no event above –1%. While these measures provide favourable financing conditions, economic output in the euro area will likely continue to recover in 2022 and exceed pre-crisis levels. The ECB regards the current elevated inflation rates as largely temporary and expects a decline in monthly reported inflation rates in the course of 2022. KfW expects a continued gradual increase in EUR swap rates in 2022. On average, the yield curve (the spread between ten and two-year swap rates) is expected to steepen in 2022.

KfW also expects a further rise in interest rates for the USA in 2022 based on continued economic recovery and monetary tightening. On average, KfW expects the yield curve (the spread between ten and two-year USD swap rates) to steepen clearly in 2022. The US Federal Reserve is expected to taper its net purchases of securities to zero and to start interest hikes in the course of 2022.

New business projections

Overview

As the central control variable for its net assets, KfW Group projects new business volume of EUR 87.1 billion for 2022. For the business sectors Export and project finance, KfW Development Bank and DEG, this reflects continued promotional business at the level of 2021, as well as the high demand for long-term loans in the domestic promotional business. These new business projections are subject to change due to the persistent pandemic, its economic consequences and any potential political measures, as well as new or changed priority areas for Germany’s new Federal Government. For example, the option of applying for KfW coronavirus aid was extended until 30 April 2022 (previously 31 December 2021) at short notice, and it was not possible to consider the potential demand for these funds in the projected figures. This dynamic development means that KfW can only make estimates, including with respect to any substitution effects on other funding programmes, within a broad range. For this, the further development of the pandemic, its economic consequences and any related political measures will be decisive. KfW’s internal forecast for all domestic coronavirus aid programmes in 2022 currently estimates a range between EUR 1.6 and 14.5 billion. In light of the current situation, this estimate is subject to great uncertainty. In any event, KfW will fulfil its mandate and continue to support the German economy and society, especially during the pandemic. Given that the procedures for adjusting the actual figures, if necessary, are established the same way as in 2021, there should not be any obstacles.

Commitments under the Federal Funding for Efficient Buildings (BEG) were suspended on 23 January 2022 at 12 p.m. due to the inordinate number of applications that resulted in the earmarked budgetary resources being exhausted ahead of schedule. The Federal Ministries for Economic Affairs and Climate Action, for Housing, Urban Development and Construction, and of Finance agreed on 1 February 2022 to check and approve all applications eligible for promotion received before the suspension date in due course and according to the programme criteria valid up to that time. Since 22 February 2022, it is possible to submit new applications for promotion of refurbishment under the Federal Funding for Efficient Buildings programme. In contrast, the funding for new builds is to be restructured for the future. KfW is in close contact with the Federal Ministry for Economic Affairs and Climate Action as regards this issue.

Domestic business

Given the economic growth development expected for Germany in 2022, the business sector **Mittelstandsbank & Private Kunden (SME Bank & Private Clients)** assumes a high total commitment volume (EUR 47.9 billion projected). This will be buoyed in particular by the continued strong demand for housing finance and the utilisation of long-term loans in commercial financing (addressing the investment backlog). The newly formed Federal Government is also expected to provide additional impetus.

The Mittelstandsbank (SME Bank) business segment anticipates robust demand for commercial financing, albeit below the previous year's COVID-related high figure. Companies are expected to move away from short-term liquidity hedging to long-term investment measures as a means of addressing current societal megatrends. In programmes, on which lies a special promotional focus, KfW supports demand, for example, by means of including negative funding rates for financing partners, which since mid-2021 has enabled the reduction of final borrower interest rates to 0% (depending on the capital market interest rate). In addition, since the beginning of 2022, corporate and start-up financing has been bundled in the new ERP promotional loan programme, with a view to making the promotional offering in this segment even simpler and more customer-friendly.

Favoured by the persistently low interest rates, the Private Clients business segment continues to be characterised by a high level of willingness to invest, particularly in the energy-efficient housing area. A significant decline in demand for the Federal Government promotion of energy-efficient buildings ("BEG") products is not expected, despite the Efficiency House 55 standards being discontinued. Further impetus from the new Federal Government to boost demand is conceivable, particularly in housing refurbishment, which is highly relevant to climate protection. Due to the sustained high demand, educational funding, which is also anchored in the Private Clients business segment, is expected to be offered at the same level as the previous year.

The business sector **Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)** anticipates strong demand for loans both in municipal investments and in customised finance of companies, banks and promotional institutions of the federal states. This demand is also driven by the new flexibility generated by passing on negative funding rates to financing partners. The business sector plans promotion with a total new business volume of EUR 9.2 billion in 2022.

As regards customised financing for companies, the impact of the coronavirus pandemic on corporate willingness and capacity to take on debt for new investments cannot yet be definitively predicted. However, investment demand is again expected to be robust in 2022.

The demand for municipal investment remains high from the perspective of the Municipal and Social Infrastructure segment given the central role of municipalities and municipal enterprises in meeting the challenges posed by climate change, the need for digitalisation and the COVID-19 pandemic, as well as the importance of climate resilience brought to light by the catastrophic floods of July 2021. However, the strained budget and debt situation of some municipalities, combined with limited capacities in the construction industry and administration, continue to restrict their ability to invest. The business sector expects increasing demand for promotional funds overall. Individual financing with financing partners in Germany and Europe and global funding of promotional institutions of the German federal states continue to be characterised by a sound refinancing situation at partner banks and the current low interest rates combined with the ECB's expansionary monetary policy. Demand for global loans to support leasing investments has improved again after a temporary period of pandemic-induced restraint. As regards funding for export loans, demand is currently stable but dependent on the development of the export economy after the COVID-19 pandemic. The persistent low-interest environment represents a permanent challenge to maintaining the attractiveness of products with regard to global loans for Europe and global funding of promotional institutions of the German federal states, as well as for customised corporate finance.

KfW Capital projects a commitment volume of around EUR 1.9 billion in financial year 2022 (of which EUR 0.6 billion at its own risk). The German venture capital (“VC”) market has completely recovered from the COVID pandemic. Back in 2020, there was a slight drop in the annual VC investment level from EUR 2.1 billion to EUR 1.9 billion, however, the start of 2021 brought considerable tailwind to the sector. Measured in terms of economic strength and the volume of VC investments, Germany is nonetheless still below the European average. KfW Capital will continue to play an important role as a reliable partner in the venture capital market in 2022, expanding its investments in VC funds further in 2022. KfW Capital’s role was reinforced by the new Federal Government’s coalition agreement and its focus on innovation financing. The focus of promotion and financing remains on making equity investments in VC and venture debt funds. The three existing products and programmes (High-Tech Start-Up Fund – “HTGF”, coparion, ERP VC Fund Investments) were supplemented in 2021 by the “ERP/Future Fund – Growth Facility” programme, through which the business sector invests in venture capital and, in particular, growth funds. This increases their fund volume and also enables them to provide the urgently needed larger tickets to finance growth cases.

The first three components of the Future Fund (“*Zukunftsfonds*”) initiated by the Federal Government with a volume of EUR 10 billion until the end of 2030 were launched in summer 2021. The aim of the Future Fund is to use its various components to provide more financing for the growth of young and innovative technology companies in particular. The Future Fund’s activity is expected to generate a sizable increase in commitments made on a trust basis for the Federal Government, from EUR 0.2 billion in financial year 2021 to a projected EUR 1.3 billion in 2022.

Financial markets

The business sector **Financial markets** plans new investments of EUR 0.4 billion in its green bond portfolio for financial year 2022 in order to stabilise its volume within the target corridor of EUR 2.0 to 2.5 billion, taking into account maturing bonds.

International business

Despite the globally deteriorating economic outlook, there are still regions with growth potential in Europe, as well as among developing countries and emerging markets relevant for the **Export and project finance** business sector. Economic stimulus programmes can also generate stimulus for financing demand (e.g. PPPs), particularly in the area of infrastructure investments and projects relating to the transformation to a climate-neutral economy. Health risks (COVID-19) and geopolitical risks remain relevant to the business sector Export and project finance, and are currently evident primarily through lower country ratings. Similar to protectionist efforts, these risks could have a noticeable adverse effect on world trade and thus on investment and financing opportunities. On the other hand, targeted regionalisation of supply chains in response to the pandemic could open up opportunities for lending. From today’s perspective, despite the uncertainties, the post-COVID era is expected to offer sufficient potential for German and European exporters and companies that invest in their competitiveness. Financing approaches can be derived from this for the business sector Export and project finance. Export and project finance expects a commitment volume of EUR 14.6 billion for 2022.

KfW has decided to split the former business sector **Promotion of developing countries and emerging economies** with its two business areas KfW Development Bank and Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG) into two separate business sectors from 2022.

The **KfW Development Bank** business sector is expected to experience continued dynamic business growth in 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 in 2022. In view of the ongoing COVID-19 pandemic, support to partner countries through rapid and efficient implementation of the coronavirus immediate assistance programmes will also play a role in 2022. In this regard, the international donor community is increasingly focusing on sustainable reconstruction, which is being further developed in concepts such as “Build Back Better” and “Green, Resilient and Inclusive Development” (“GRID”). In addition, issues such as cooperation with Africa, alleviating poverty, the mitigation of crises and causes of displacement, as well as climate protection and the protection of other global goods are high on the political agenda in Germany and EU. The German Federal Government

and the European Commission assume responsibility in the area of international environmental and climate protection and are involved in a large number of climate initiatives. The Federal Ministry for Economic Cooperation and Development (*Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung* – “BMZ”) also supports the G20 Compact with Africa initiative through reform partnerships with currently six selected countries. The Federal Government’s budget funds for development cooperation in 2022 will likely be at a level similar to that prior to the COVID pandemic. The future priorities of the BMZ as KfW Entwicklungsbank’s most important contracting authority are derived from the BMZ 2030 reform strategy and the long-term core areas defined therein, which are based on the UN’s Sustainable Development Goals (“SDGs”): (i) Peaceful and inclusive societies; (ii) A world without hunger – universal access to food; (iii) Training and sustainable growth for decent jobs; (iv) Responsibility for our planet – climate and energy; and (v) Protecting our livelihoods – environment and natural resources. Within the context of the Multiannual Financial Framework 2021–2027, the European Commission and the member states have further developed the funding instruments for European development cooperation. This initiative focuses, among other things, on increased mobilisation of private capital, greater visibility for European development cooperation and closer cooperation between European promotional institutions. In light of geographical expansion and the increase in funding for guarantees from the expanded European Fund for Sustainable Development Plus (EFSD+), cooperation with the EU will gain in importance in the coming years. 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 11.6 billion for 2022.

The **DEG** subsidiary is assigned to the DEG business sector of the same name. Economic development in developing countries and emerging markets relevant for DEG’s activities is expected to be particularly affected by the coronavirus pandemic and its economic impact globally and in DEG’s partner regions in 2022. The aim is to continue 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). DEG aims to achieve net impact contributions through its financing, including through transformative support for its customers and investments in high-impact sectors. Specific promotional programmes, including with respect to environmental and social management, climate and resource protection, and training, support the companies financed by DEG in implementing international good practices.

The current financing and promotional offerings for German companies have been expanded to support the German economy in developing countries and emerging economies, particularly in Africa. To this end, German businesses have access not only to the German Desk service, but also to the AfricaConnect financing product, designed to promote investment in Africa through risk assumption and provision of attractive terms under the Federal Government’s Development Investment Fund (“EIF”).

In order to successfully develop its business model with a focus on impact/climate and in view of the market situation still characterised by COVID-related effects, DEG has firmly set its new business framework at a medium level for the next three years, after which it projects a return to moderate growth. DEG expects a new commitment volume of EUR 1.6 billion for financial year 2022.

Funding projections

KfW issues bonds worldwide to **fund** its promotional activities. It issues these bonds in a large number of currencies and with differing maturities, thereby addressing a variety of target groups. Thanks 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 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. Due to the high demand for Green Bonds – Made by KfW, their share of the total issue volume is expected to continue to gain in importance. KfW currently anticipates issuing liquid large-volume green bonds in various currencies with a total volume of at least EUR 10 billion in 2022.

The total issue volume in financial year 2022 is projected to be EUR 80 to 85 billion.

Earnings projections

In the group **earnings projections** for 2022, KfW expects Consolidated profit (before IFRS effects) of approximately EUR 0.9 billion based on anticipated macroeconomic conditions. This puts projected earnings at just below the strategic target level of EUR 1 billion.

Net interest income (before promotional expense) of EUR 2.4 to 2.5 billion is expected for 2022. Interest margins in the lending business declined slightly year on year. The low interest rate environment, which is also likely to persist in 2022, will continue to burden earnings. KfW therefore expects that the income generated by return on equity will continue to decline. Opportunities and risks for consolidated profit may arise primarily for the treasury result from market conditions deviating from projections in conjunction with KfW's positioning.

KfW projects net commission income totalling EUR 0.6 billion, the same level as the previous year. This includes remuneration for the implementation of promotional programmes in Germany on behalf of the Federal Government as well as remuneration based on the General Agreement on Financial Cooperation.

Administrative expense is projected to increase to EUR 1.5 billion in 2022. This includes the launch of company policy projects such as processing and development of promotion in domestic business, further development of the business sectors Export and project finance, and DEG, along with modernisation, digitalisation and regulation projects.

Overall, the operating result before valuation is expected to decline year on year. The cost-income ratio ("CIR") before promotional expense is budgeted at 51% for 2022.

At EUR 0.5 billion, the expected standard risk costs for 2022 are EUR 0.1 billion below the projected risk provisions required for 2021. However, risk provisions for the lending business for 2022 remain dependent on the further course of the coronavirus pandemic. With the valuation result in 2021 characterised in particular by impairment reversals in the equity investment portfolio due to economic easing after the pandemic year 2020, projections for 2022 assume that the positive valuation result/net other operating result in the amount of around EUR 0.2 billion will stabilise. The continued uncertain situation due to the COVID-19 pandemic may lead to significant positive or negative deviations in the projected operating result after valuation.

KfW expects promotional expense of EUR 0.4 billion in 2022. Realisation of a year-on-year increase of EUR 0.2 billion compared to 2021 promotional expense will depend on market conditions in 2022.

Overall conclusion

In light of the economic recovery and expected demand, KfW projects new business volume of EUR 87.1 billion and consolidated profit of EUR 0.9 billion for 2022.

KfW expects that the latest developments in the Russia-Ukraine conflict, with Russia's attack on Ukraine on 24 February 2022, will have a negative impact on German and global economic output in 2022. This may therefore adversely affect achievement of our objectives set for financial year 2022. In KfW's current assessment, the crisis particularly affects KfW's loan and equity investment exposures in Ukraine and Russia. KfW's exposure is largely covered by export and credit insurance and by guarantees from the Federal Republic of Germany. Indirect effects of the conflict can also be expected on the group's business and its earnings position as well. For instance, there may be a negative impact on the energy and commodity markets, and consequences of being affected by the sanctions imposed. It is not really possible to give a precise forecast of the overall impact on the net assets, financial and earnings position at present, given the dynamic development, particularly concerning uncertain further escalation or de-escalation steps of the military conflict. KfW will continue to closely monitor the development of the conflict 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	2021	2020
	EUR in millions	EUR in millions
Volume of business	667,398	643,716
Total assets	562,355	543,320
Bonds issued	443,617	412,754
Own funds	29,816	28,431
Net interest income (before promotional expense)	2,068	2,050
Net commission income (before promotional expense)	493	460
Administrative expense (before promotional expense)	1,130	1,034
Promotional expense	188	88
Profit for the year	1,784	1,599

Development of KfW

KfW's earnings in financial year 2021 improved compared to the prior-year level. Net interest income before promotional expense increased compared to the previous year despite the persistent low interest rates. Net commission income before promotional expense was higher than in the previous year as a result of the remuneration for the Energy-efficient Construction and Refurbishment programmes, which were in high demand. The cost-income ratio (before promotional expense) increased to 44.1% (2020: 41.2%) due to higher administrative expenses. KfW strengthened its capital base due to its earnings position, with a profit for the year of EUR 1,784 million.

KfW's total assets increased by EUR 19.0 billion to EUR 562.4 billion in financial year 2021, with business volume increasing from EUR 643.7 billion to EUR 667.4 billion.

KfW's promotional business volume amounted to EUR 94.3 billion, lower than the Group's promotional business volume of EUR 107.0 billion. The difference relates to the international business and results from DEG and IPEX Export and project finance.

Development of earnings position

KfW's operating result before valuation and promotional expense was EUR 1,392 million, which was lower (by EUR 238 million) than the previous year's figure of EUR 1,630 million.

Reconciliation of earnings position before promotional expense to earnings position on the income statement prepared in accordance with commercial law for financial year 2021

Earnings position	EUR in millions	Reconciliation EUR in millions	EUR in millions	German Commercial Code income statement form
Net interest income (before promotional expense)	2,068	-144	1,923	Net interest income incl. current income
Net commission income (before promotional expense)	493	-12	482	Net commission income
General administrative expenses (before promotional expense)	1,130	14	1,144	General administrative expenses incl. depreciation, amortisation and impairments on property, plant and equipment and intangible assets
Other operating income and expenses (before promotional expense)	-39	-18	-57	Other operating income and expenses
Operating result (before risk provisions/valuation/ promotional expense)	1,392	-188	1,204	Operating result (before risk provisions/valuation)
Valuation result	32	-1	31	Income from reversals of write-downs of equity investments, shares in affiliated companies and securities held as fixed assets
Risk provisions for lending business	113	1	113	Income from the reversal of impair- ment losses on receivables and certain securities and the reversal of provisions for loan losses
Net result from transfer agreements	41	0	41	Income from profit pooling, profit and loss transfer and partial profit transfer agreements
Reversal of the fund for general banking risks	400	0	400	Reversal of the fund for general banking risks
Profit/loss from operating activities (before promotional expense)	1,978	-188	1,790	Profit/loss from operating activities
Promotional expense	188	-188	0	-
Taxes on income	4	0	4	Taxes on income
Other taxes	2	0	2	Other taxes
Profit for the year	1,784	0	1,784	Profit for the year

Reconciliation of earnings position before promotional expense to earnings position on the income statement prepared in accordance with commercial law for financial year 2020

Earnings position	EUR in millions	Reconciliation EUR in millions	EUR in millions	German Commercial Code income statement form
Net interest income (before promotional expense)	2,050	-54	1,996	Net interest income incl. current income
Net commission income (before promotional expense)	460	-11	449	Net commission income
General administrative expenses (before promotional expense)	1,034	12	1,046	General administrative expenses incl. depreciation, amortisation and impairments on property, plant and equipment and intangible assets
Other operating income and expenses (before promotional expense)	155	-12	143	Other operating income and expenses
Operating result (before risk provisions/valuation/ promotional expense)	1,630	-88	1,542	Operating result (before risk provisions/valuation)
Valuation result	-10	1	-9	Impairments of and valuation allow- ances on equity investments, shares in affiliated companies and securities held as fixed assets
Risk provisions for lending business	44	-1	43	Income from the reversal of impair- ment losses on receivables and certain securities and the reversal of provisions for loan losses
Net result from transfer agreements	31	0	31	Income from profit pooling, profit and loss transfer and partial profit transfer agreements
Profit/loss from operating activities (before promotional expense)	1,695	-88	1,607	Profit/loss from operating activities
Promotional expense	88	-88	0	-
Taxes on income	6	0	6	Taxes on income
Other taxes	2	0	2	Other taxes
Profit for the year	1,599	0	1,599	Profit for the year

At EUR 2,068 million, **net interest income (before promotional expense)** was higher than in the previous year (EUR 2,050 million). The increase was due to lower interest income in the lending and money market business that was more than offset by a reduction in interest expense.

Net commission income (before promotional expense) of EUR 493 million was EUR 33 million above the previous year's level of EUR 460 million. The increase is primarily due to the remuneration for the Energy-efficient Construction and Refurbishment programme and its successor, Federal Funding for Efficient Buildings, totalling EUR 119 million (2020: EUR 83 million). In addition, KfW recorded a EUR 28 million increase in commission income from the programmes for charging stations for electric cars, to EUR 29 million. Commission income generated by the administration of German Financial Cooperation ("FC") in the business sector Promotion of developing countries and emerging economies increased to EUR 229 million (2020: EUR 217 million). Commission income from the KfW Special Programme for coronavirus aid decreased to EUR 61 million (2020: EUR 99 million), with commission income from the "Baukinder-geld" scheme dropping to EUR 48 million (2020: EUR 67 million). The remuneration from the Federal Government was offset by related administrative expenses.

Administrative expense (before promotional expense) increased by EUR 96 million to EUR 1,130 million, largely due to higher expenses for wages and salaries, as well as higher costs for external service provision because of the growth in the change portfolio.

Net other operating income (before promotional expense) amounted to EUR –39 million (2020: income of EUR 155 million) due to effects from the change in the interest rate used to measure pensions in accordance with the German Commercial Code (EUR –130 million). In addition, the previous year’s figure included the one-time collection of income from the margin fund of the Special Programme 2009 recognised in profit or loss and the derecognition of the liability to the Federal Government of EUR 144 million.

The positive **valuation result** of EUR 32 million (2020: expense of EUR 10 million) is largely characterised by the equity investment result realised, partially offset by impairments.

Risk provisions generated income of EUR 113 million (2020: EUR 44 million). Net additions to specific valuation allowances, particularly in education financing and in the “Maritime Industries” sector, were more than offset by the reversal of general valuation allowances and income from the successful recovery of loans previously written off. The net reversal of general valuation allowances was due to the improved macroeconomic outlook. There was a decline in specific valuation allowances and specific provisions for the lending business from EUR 602 million to EUR 503 million as well as a decline in the general valuation allowances and general provisions for the lending business from EUR 579 million to EUR 532 million. Non-performing loans in the amount of EUR 121 million in connection with specific valuation allowances were written off in financial year 2021 (2020: EUR 75 million).

KfW’s domestic **promotional expense**, which has a negative impact on the its earnings position, amounted to EUR 188 million in 2021 compared to EUR 88 million in 2020. The key component of KfW’s promotional expense is interest rate reductions of EUR 144 million, granted during the first fixed interest rate period in addition to passing on its favourable refinancing conditions. Moreover, promotional expenses reported in net commission income and administrative expense were incurred in the amount of EUR 26 million (2020: EUR 23 million). This spending was aimed at, among other things, the sale of KfW’s promotional products. Other operating expenses include EUR 18 million (2020: EUR 12 million) in promotional grants awarded as a supplement to the lending business as a promotional expense.

Income from profit pooling, profit and loss transfer and partial profit transfer agreements includes interest on the silent contribution to KfW IPEX-Bank GmbH of EUR 15 million and KfW Capital GmbH profits transferred of EUR 26 million.

The partial reversal of the **fund for general banking risks** in the amount of EUR 400 million contributed positively to the overall result.

Financial year 2021 closed with **profit for the period** of EUR 1,784 million (2020: EUR 1,599 million), which was fully allocated to retained earnings.

Development of net assets

KfW saw both its total assets and its volume of business increase in financial year 2021.

Volume of receivables

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Loans and advances to banks	334,064	323,153
Loans and advances to customers	110,489	111,362
Loans held in trust	10,561	10,799
Contingent liabilities from financial guarantees	711	667
Irrevocable loan commitments	104,332	99,729
Total	560,157	545,711

The volume of receivables (loans and advances to banks and customers, including irrevocable loan commitments, loans held in trust and guarantees) increased from EUR 545.7 billion to EUR 560.2 billion, which was driven by the energy and climate programmes (EUR 12.7 billion). Overall, the payouts in new lending business more than compensated for the repayments.

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, declined to EUR 10.6 billion in 2021 (2020: EUR 10.8 billion).

Contingent liabilities from financial guarantees remained unchanged at EUR 0.7 billion while irrevocable loan commitments increased by EUR 4.6 billion to EUR 104.3 billion. The increase in irrevocable loan commitments was due to the irrevocable loan commitment to the Federal Government in connection with the Future Fund in the amount of EUR 8.5 billion.

Total bonds and other fixed-income securities increased by EUR 1.3 billion to EUR 39.9 billion (2020: EUR 38.6 billion). Holdings of repurchased own issues also climbed from EUR 3.7 billion in 2020 to EUR 3.9 billion. This was equivalent to 1.0% of bonds issued.

At a total amount of EUR 36.0 billion, holdings of securities of other issuers, which make up 90.2% of the total holdings of all bonds and other fixed-income securities, slightly exceeded the previous year's level of EUR 34.9 billion, by EUR 1.1 billion. Of the securities from other issuers, 76.4% 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 6.1 billion, (2020: EUR 6.3 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 3.8 billion (2020: EUR 3.7 billion). KfW's assets held in trust rose by EUR 1.1 billion to EUR 18.3 billion (2020: EUR 17.2 billion).

Development of financial position

In 2021, KfW raised EUR 82.6 billion in the capital markets to fund its business activities (2020: EUR 66.4 billion). A total of 211 bonds were issued in 15 currencies. The 37 Green Bond transactions (including 15 top-ups) with a volume of EUR 16.2 billion made a 19.6% contribution to funding.

Borrowings increased by EUR 19.1 billion to EUR 502.8 billion.

Borrowings

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Federal Republic of Germany		
– ERP Special Fund	138	216
– Federal budget	4,343	5,077
– Economic Stabilisation Fund (WSF)	35,400	38,000
	39,881	43,294
Other lenders	4,006	3,681
Liabilities to customers	43,886	46,974
Liabilities to banks	15,271	23,941
Bonds issued	5,553	16,825
Bearer securities (incl. commercial paper)	436,525	393,925
Accrued interest and interest payable	1,539	2,004
Bonds and notes issued	443,617	412,754
Total	502,774	483,669

Bonds issued increased by EUR 30.9 billion year on year and totalled EUR 443.6 billion as of 31 December 2021. Fluctuations in foreign exchange rates, particularly with the US dollar, had an impact on portfolio development, as did new issues and maturities.

Bonds issued accounted for 88.2% of borrowed funds, which was more than the previous year's level (85.3%). Proportionally, they therefore remain KfW's largest source of funding. The share of bonds denominated in euros was 55% in 2021 (2020: 64%); those denominated in US dollars amounted to 26% (2020: 24%). The share of bonds denominated in pounds sterling was 8% (2020: 5%).

As of 31 December 2021, KfW's funds raised via the Economic Stabilisation Fund ("WSF") by means of promissory note loans decreased by EUR 2.6 billion, from EUR 38.0 billion to EUR 35.4 billion.

The share of funds from banks and customers (excluding federal budget funds) decreased slightly year on year to 3.8% (2020: 5.7%). This includes cash collateral received primarily to reduce counterparty risk from the derivatives business in the amount of EUR 8.8 billion (2020: EUR 4.8 billion). Liabilities to banks included the TLTRO III transactions amounting to EUR 1.4 billion (2020: EUR 13.4 billion).

Balances with central banks fell slightly by EUR 1.7 billion to EUR 42.4 billion (2020: EUR 44.2 billion).

KfW's **own funds** amounted to EUR 29.8 billion as of 31 December 2021, up 4.9% compared to the previous year. This increase was exclusively due to the net profit of EUR 1,784 million allocated to retained earnings. Part of the fund for general banking risks was reversed and it now amounts to EUR 0.2 billion (2020: EUR 0.6 billion).

Own funds

	31 Dec. 2021	31 Dec. 2020
	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	14,755	12,971
c) Statutory reserve under Section 17 (4) D-Mark Balance Sheet Act ¹⁾	48	48
Fund for general banking risks under Section 340g HGB	200	600
Total	29,816	28,431

¹⁾ To be adjusted by the special loss account shown 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 2021 Sustainability report. This can be accessed online at:

https://www.kfw.de/microsites/Microsite/nachhaltigkeitsbericht.kfw.de/downloads/KfW_Sustainability-Report_2021.pdf



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Consolidated statement of comprehensive income

Income statement

	Notes	2021 EUR in millions	2020 EUR in millions
Interest income from the effective interest method		615	1,876
Other interest income		446	609
Interest income, total	(21)	1,061	2,485
Interest expense	(21)	-1,325	-62
Net interest income		2,386	2,547
Net gains/losses from risk provisions ¹⁾	(7), (22)	196	-781
Net interest income after risk provisions		2,582	1,766
Commission income	(10), (23)	647	599
Commission expense	(23)	24	26
Net commission income		623	573
Net gains/losses from hedge accounting	(8), (24), (56), (57)	-110	16
Net gains/losses from other financial instruments at fair value through profit or loss	(25)	767	-428
Net gains/losses from disposal of financial assets at amortised cost	(26)	-4	-1
Net gains/losses from investments accounted for using the equity method	(6), (27)	14	31
Administrative expense	(28)	1,466	1,342
Net other operating income or loss	(29)	-53	-14
Profit/loss from operating activities		2,353	600
Taxes on income	(30)	137	76
Consolidated profit		2,215	525

¹⁾ Net gains/losses from non-substantial contractual modifications are reported under Net gains/losses from risk provisions.

Consolidated statement of comprehensive income

	2021 EUR in millions	2020 EUR in millions
Consolidated profit	2,215	525
Other comprehensive income	195	-233
Change in own credit risk of liabilities designated at fair value through profit or loss	23	-114
Defined benefit pension obligations (before taxes)	182	-126
Deferred taxes on defined benefit pension obligations	-10	6
Consolidated comprehensive income	2,410	292

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. 2021 EUR in millions	31 Dec. 2020 EUR in millions
Cash reserves	(33)	42,439	44,178
Financial assets at amortised cost	(7), (11), (34), (35), (36), (56), (57)	473,221	460,615
Financial assets at fair value	(7), (37), (58)	19,085	18,077
Value adjustments from macro fair value hedge accounting	(8), (38), (58)	4,609	12,220
Derivatives designated for hedge accounting	(8), (39), (56), (57), (58)	8,478	7,958
Investments accounted for using the equity method	(6), (40)	597	613
Non-current assets held for sale	(12), (41)	119	81
Property, plant and equipment	(15), (42)	971	999
Intangible assets	(16), (43)	144	172
Income tax assets	(44)	506	714
Other assets	(10), (45)	794	758
Total		550,962	546,384

Liabilities and equity

	Notes	31 Dec. 2021 EUR in millions	31 Dec. 2020 EUR in millions
Financial liabilities at amortised cost	(7), (46), (56), (57)	496,385	483,867
Financial liabilities at fair value	(7), (47), (58), (60)	11,484	16,231
Value adjustments from macro fair value hedge accounting	(8), (48), (58)	37	57
Derivatives designated for hedge accounting	(8), (49), (56), (57), (58)	4,554	9,910
Provisions	(7), (18), (50)	3,576	3,543
Income tax liabilities	(51)	337	450
Other liabilities	(10), (52)	382	529
Equity	(19), (53)	34,207	31,797
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		22,026	19,411
Fund for general banking risks		200	600
Revaluation reserves	(7), (19)	-957	-1,151
Total		550,962	546,384

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. 2020	3,300	8,447	1,191	18,742	600	-918	31,362
Consolidated comprehensive income	0	0	0	525	0	-233	292
<i>Consolidated profit</i>	0	0	0	525	0	0	525
<i>Other comprehensive income</i>	0	0	0	0	0	-233	-233
Reclassifications within Equity	0	0	0	0	0	0	0
Changes in consolidated group	0	0	0	0	0	0	0
Other changes in share capital	0	0	0	144	0	0	144
As of 31 Dec. 2020	3,300	8,447	1,191	19,411	600	-1,151	31,797
Changes due to retrospective adjustments	0	0	0	0	0	0	0
Consolidated comprehensive income	0	0	0	2,215	0	195	2,410
<i>Consolidated profit</i>	0	0	0	2,215	0	0	2,215
<i>Other comprehensive income</i>	0	0	0	0	0	195	195
Reclassifications within Equity	0	0	0	400	-400	0	0
Changes in consolidated group	0	0	0	0	0	0	0
Other changes in share capital	0	0	0	0	0	0	0
As of 31 Dec. 2021	3,300	8,447	1,191	22,026	200	-957	34,207

The Reclassifications within Equity are due to the partial reversal of the fund for general banking risks in an amount of EUR 400 million recorded in KfW's financial statements in accordance with the provisions of the German Commercial Code (HGB) and result in a corresponding increase in Retained earnings. Other changes in share capital of EUR 144 million within Retained earnings in the previous year relate to the write-off of a liability to the Federal Government recognised directly in equity.

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

The following tables as well as Note 53 provide details on the Consolidated statement of changes in equity.

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. 2020	-40	-926	47	-918
Consolidated comprehensive income	-114	-126	6	-233
<i>Other comprehensive income</i>	-114	-126	6	-233
Reclassifications within Equity	0	0	0	0
As of 31 Dec. 2020	-153	-1,052	54	-1,151
Consolidated comprehensive income	23	182	-10	195
<i>Other comprehensive income</i>	23	182	-10	195
Reclassifications within Equity	0	0	0	0
As of 31 Dec. 2021	-131	-870	44	-957

Consolidated statement of cash flows

	2021	2020
	EUR in millions	EUR in millions
Consolidated profit	2,215	525
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	42	990
Changes in provisions for pensions and similar commitments and Other provisions	359	143
Other non-cash expenses and income	88	59
Profit/loss from the disposal of assets	0	0
Other adjustments	-2,337	-2,531
Subtotal	368	-814
Changes in assets and liabilities from operating activities after adjustment for non-cash items:		
Financial assets at amortised cost	-12,555	-26,879
Financial assets at fair value	-955	201
Other assets relating to operating activities	7,227	1,454
Financial liabilities at amortised cost	12,519	35,659
Financial liabilities at fair value	-2,794	-636
Other liabilities relating to operating activities	-7,801	4,428
Interest and dividends received	1,061	2,485
Interest paid	1,325	62
Income tax paid	-49	-16
Cash flow from operating activities	-1,655	15,943
Property, plant and equipment/Intangible assets:		
Cash proceeds from disposals	3	2
Cash payments for acquisitions	-72	-95
Securities and investments (equity investments):		
Cash proceeds from disposals/Cash payments for acquisitions	-15	-12
Cash flow from investing activities	-84	-105
Cash proceeds from/Cash payments for capital increases/decreases	0	0
Changes from other financing activities	0	144
Cash flow from financing activities	0	144
Cash and cash equivalents as of the end of the previous period	44,178	28,195
Cash flow from operating activities	-1,655	15,943
Cash flow from investing activities	-84	-105
Cash flow from financing activities	0	144
Cash and cash equivalents as of the end of the period	42,439	44,178

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 –2,386 million (2020: EUR –2,547 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 2021 (2020: EUR 11 million). The cash payments for the interest portion of lease liabilities are reported under Interest paid.

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



Notes

Accounting policies

(1) Basis of presentation

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. KfW promotes sustainable improvement of economic, environmental and social conditions around the world, with an emphasis on the German economy.

The Executive Board of KfW is responsible for the preparation of the consolidated financial statements and the combined management report. After the recommendation of the Audit Committee, the consolidated financial statements and the combined management report are submitted to KfW's Board of Supervisory Directors for approval.

As of the reporting date, KfW Group comprises KfW and five subsidiaries that are fully consolidated. 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 2021 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 2021, except for some associated companies accounted for using the equity method, where financial statements as of 30 September 2021 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 2021

As a result of the change in reference rates in the course of the Benchmark Reform, the IASB has amended certain standards, including IFRS 9, IAS 39 and IFRS 7, to limit unintended effects on banks' financial statements. The IASB's standard-setting programme is split into two phases. Phase 1, which was already applied in financial year 2020, deals with issues affecting financial reporting in the period before the replacement of an existing interest rate benchmark with an alternative rate. Phase 2 deals with issues affecting financial reporting at the time an existing interest rate benchmark is replaced by an alternative rate.

Both phases have already been adopted and endorsed into European law by the EU. They are applicable to the current reporting period.

The Benchmark Reform involves fundamentally changing market practices, which affect all market participants to the same extent. The schedule for transitioning the reference rates for all financial instruments concerned was set after the Financial Conduct Authority (FCA) determined that LIBOR rates were no longer representative in March 2021. In addition, the fallback rate for derivatives has already been defined by the International Swaps and Derivatives Association (ISDA) Protocol. In view of these developments, there is no longer any uncertainty with regard to the measurement of hedged risks. Consequently, the Phase 1 amendments are no longer applicable.

KfW assumes that there will be a transition to economically equivalent agreements with the counterparties. This is confirmed in the active transition of the derivatives portfolio currently in progress. The benchmark reform will only have a minor impact on the income statement due to the reference rate transition being largely present value neutral. KfW has not identified any cases which would call for the application of the simplifications concerning contractual modifications from Phase 2.

The reference rate transition as part of the Benchmark Reform entails changes to all of the bank's core processes. The impact on accounting will be particularly noticeable in hedge accounting, as well as in accounting measurement. The impact on results will be minimal in the case of a formal dissolution and redesignation of hedges in the context of the transition of derivatives to the new reference rates. The same is true in the event of the continuation of the hedging relationships when hedging instruments are adjusted to the new reference rates. The amortisation method ensures that the value adjustment from the hedged risk accrued until the transition is dissolved over the residual term. The transition does not change the hedged risk, as it continues to be represented by overnight interest rates.

KfW has set up a crossfunctional project structure, given in particular the diverse and complex methodological, procedural and IT implications of the reference rate transition. The reference rate transition was preceded by impact analyses, with the necessary procedural and system-related adjustments resulting therefrom having been largely implemented.

In June 2020, the IASB published amendments to IFRS 4 "Insurance Contracts" in which the expiry of the temporary exemption from the application of IFRS 9 in IFRS 4 was delayed to financial years beginning on or after 1 January 2023. The amendments were endorsed into European law in mid-December 2020 and are effective for financial years beginning on or after 1 January 2021. They do not have any impact on KfW Group's net assets, financial and earnings position.

At the end of May 2020, the IASB published amendments to IFRS 16 for COVID-19-related rent concessions. The lessee is exempted from assessing whether the rent concessions granted as a result of the coronavirus crisis constitute a lease modification. The amendments apply to rent concessions that reduced rent payments due on or before 30 June 2021. The standard is to be applied retrospectively for reporting periods beginning on or after 1 June 2020. The IASB published another amendment at the end of March 2021, extending the application period of the May 2020 amendments to IFRS 16 by a year, until 30 June 2022. The amendments are to be applied for financial years beginning on or after 1 April 2021. The amendment, which was endorsed into European law at the end of August and is effective immediately, does not affect KfW Group's net assets, financial and earnings position, as the group has not taken advantage of any rent concessions in relation to COVID-19.

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
IFRS 3	1 Jan. 2022	The update to IFRS 3 mainly relates to the reference to the revised conceptual framework. In addition, IFRS 3 was amended to require an acquirer to apply IAS 37 or IFRIC 21 instead of the conceptual framework to identify the obligations it has assumed that are within the scope of IAS 37 or IFRIC 21. Furthermore, an addition was made to IFRS 3 explicitly prohibiting recognition of acquired contingent assets.
IAS 37	1 Jan. 2022	The amendment to IAS 37 clarified that in determining an onerous contract, in addition to incremental costs, directly related costs are also to be taken into account.
IAS 16	1 Jan. 2022	The amendment to IAS 16 clarified that proceeds generated from the sale of any items produced while bringing an item of property, plant and equipment ("PPE") into use must be directly recognised in profit or loss in the future. Such proceeds can no longer be deducted from the cost of the item of PPE.
Annual Improvements 2018–2020	1 Jan. 2022	Amendments were made to IFRS 1, IAS 41, IFRS 9 and IFRS 16 in May 2020, as part of the Annual Improvements to IFRS (2018–2020 Cycle). The aim of the Annual Improvements is to improve the quality of the standards by clarifying requirements or wording.
IFRS 17	1 Jan. 2023	IFRS 17 "Insurance Contracts" was issued in May 2017. This standard is intended to replace IFRS 4 "Insurance Contracts" in the future. 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.

KfW is not using the permitted option of early application of standard amendments. At present, the updates to the standards described above do not have any significant impact on KfW 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	Mandatory application for financial years from	Description
IAS 1	1 Jan. 2023	<p>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 12 months after the reporting date. Further guidance on the interpretation of specific criteria and explanatory notes have also been included.</p> <p>The February 2021 amendments to IAS 1 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. In the future, entities will be required to disclose material accounting policy information rather than their significant accounting policies; immaterial transactions, other events or conditions need not be disclosed.</p> <p>In applying the "materiality" concept, the type of related transactions, other events and conditions must be considered in addition to the absolute amount. The amendments also explain when an accounting policy is to be considered material.</p>
IAS 8	1 Jan. 2023	<p>The changes to IAS 8 focus solely on accounting estimates and are intended to facilitate the distinction between accounting policies and accounting estimates. The amendment for the first time includes a definition of "accounting estimate". Moreover, accounting estimates based on changes and new developments or circumstances will not constitute errors requiring rectification.</p>
IAS 12	1 Jan. 2023	<p>The amendment to IAS 12 limits the scope of the initial recognition exemption, according to which no deferred tax assets or liabilities are to be recognised at the time the asset or liability is acquired. In the future, deferred taxes are to be recognised for transactions that give rise to equal taxable and deductible temporary differences. The amendment is particularly relevant for IFRS 16 applications.</p>
IFRS 17	1 Jan. 2023	<p>The amendments 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 can be applied to each individual instrument.</p>

KfW does not intend to utilise any permitted options to apply standard amendments early. The amendments are likely to have only minor effects, if any, on KfW Group's net assets, financial and earnings position.

(3) Changes to material accounting policies

KfW Group made a change to its segment reporting in financial year 2021, based on policy changes in group business sector planning, that largely results in the reclassification of Net interest income and Promotional expense from the Head office to the other business sectors.

Specifically, for 2021, the imputed return on equity included in Net interest income has been allocated to the business sectors based on the business sectors' planned regulatory capital and no longer based on their economic capital usage. In the comparative figures for 2020, this resulted in an effect of EUR –97 million in Head office.

In addition, the reversals and amortisation income from Interest rate reductions accounted for at present value and the negative current interest rate reduction margins, which in the past were allocated to the treasury result of the Head office, have been allocated to Net interest income of the business sectors Mittelstandsbank & Private Kunden (SME Bank & Private Clients) and Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients). In the comparative figures for 2020, this resulted in an effect of EUR –36 million in Head office.

The same applies for the compounding effect on the present values of rate reductions contained in Interest expense, which in the past was, for simplicity's sake, allocated to the Promotional expense of Head office and in future will be allocated to the Promotional expense of the business sectors Mittelstandsbank & Private Kunden (SME Bank & Private Clients) and Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients).

There is no longer any segment reporting on the business sectors' economic capital ("ECAP") for 2021 as this is no longer planned in the context of group business sector planning at business sector level and no longer serves as the basis for the allocation of the imputed return on equity.

Changes made did not have any impact on total consolidated profit or total consolidated comprehensive income. The comparative figures as of 31 December 2020 have been adjusted accordingly.

The following table shows the reclassifications undertaken for the period from 1 January to 31 December 2020:

Segment reporting by business sector 1 January – 31 December 2020

	Mittelstands-bank & Private Kunden (SME Bank & Private Clients)	Individual-finanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	KfW Capital	Export and project finance	Promotion of developing countries and emerging economies	Financial markets	Head office	Reconciliation/consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Net interest income (before promotional expense)	372	94	-1	767	402	356	610	1	2,601
Reclassification	55	6	1	43	21	8	-133	0	0
Adjusted net interest income (before promotional expense)	427	100	-1	811	423	364	477	1	2,601
Operating result before valuation (before promotional expense)	232	50	-9	540	194	261	586	1	1,855
Reclassification	55	6	1	43	21	8	-133	0	0
Adjusted operating result before valuation (before promotional expense)	287	56	-8	583	214	269	453	1	1,855
Profit/loss from operating activities (before promotional expense)	123	55	40	107	-423	270	516	-1	688
Reclassification	55	6	1	43	21	8	-133	0	0
Adjusted profit/loss from operating activities (before promotional expense)	178	61	41	150	-402	278	383	-1	688
Promotional expense	78	4	0	0	0	0	6	0	88
Reclassification	5	1	0	0	0	0	-6	0	0
Adjusted promotional expense	83	5	0	0	0	0	0	0	88
Consolidated profit	45	52	40	99	-425	270	444	-1	525
Reclassification	50	4	1	43	21	8	-127	0	0
Adjusted consolidated profit	95	56	41	142	-404	278	318	-1	525

KfW Group changed the presentation of its additions in the overview of gross carrying amounts in the year under review. With respect to these items, the bank does no longer separately disclose “Of which recently purchased or issued financial assets” and “Of which current business”. Instead, the two items are aggregated under “New business and increased utilisation”. This presentation is based on reporting by comparable credit institutions and KfW Group believes it improves the clarity and informational value for readers. The adjustment to presentation does not affect consolidated profit, consolidated comprehensive income, or equity.

With effect from financial year 2021, trust activities of investments accounted for using the equity method have been included in Assets/Liabilities held in trust. This share of business has been included with effect from 2021 for full recognition of all trust activities. The previous year’s figure was increased by EUR 332 million to EUR 6,576 million in Securities and investments. Liabilities held in trust were increased by the same amount. This adjustment did not have any impact on consolidated profit, consolidated comprehensive income, or equity.

(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 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 data 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 coronavirus pandemic was 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”).

As in the previous year, the economic effects of the coronavirus pandemic were taken into account as of 31 December 2021 by adjusting the probabilities of default and by applying a more conservative treatment of loss ratios (inclusion of downturn components). The improved macroeconomic expectations compared to the previous year are primarily reflected in the point-in-time adjustment of probabilities of default, which resulted in a partial reversal of what were higher risk provisions for performing loans in the previous year due to COVID-19.

Subsequent assessment at fair value of equity investments is normally based on recognised standard valuation methods such as discounted cash flow (“DCF”) or net asset value (“NAV”). The economic impact of the spread of COVID-19 continues to be taken into account in such assessment.

(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. The resulting adjustments from hidden reserves and hidden burdens are treated 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. 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 as well as joint ventures is recognised as a separate 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 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 at KfW)
4. At fair value through other comprehensive income ("FVTOCI") with recycling into profit or loss (not used at KfW)

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 at KfW).
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 to be assessed as to whether they are consistent with a basic lending arrangement and thus constitute SPPIs on the outstanding loan balance. If payments contain payments beyond SPPIs, they must be measured at fair value. 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. A criterion does not affect classification if its effect on the contractual cash flows of the financial asset is only minor (de minimis). KfW employs group-wide rules and a consistent classification of contractual ancillary agreements in assessing the SPPI criterion. A threshold value is defined for the assessment of de minimis.

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 KfW 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 placement 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 KfW’s liquidity portfolio as well. As KfW 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. Securitisation are checked on a case-by-case basis to address the special rules for “contractually linked instruments”. Consequently, KfW securities portfolios are largely measured at amortised cost using the effective interest method, as is its lending business.

KfW’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. KfW does not exercise the option of FVTOCI for equity instruments.

Consequently, KfW only applies 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 at KfW. 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 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 at KfW solely for hedging purposes 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.

For transactions mandated by the German Federal Government in accordance with Article 2 (4) of the KfW Law, the group's general recognition procedures for the relevant financial instruments are applied. Measurement is based on the relevant individual contractual terms and conditions concerning risk allocation.

Financial instruments are initially recognised at fair value.

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.

B. Impairments

At KfW 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 12 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 continues to be 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 KfW's business model. The bank 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.

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

The bank uses the rating at initial recognition, taking account of the migration expected until the time of measurement (initial forward rating) to assess whether a transaction can migrate from stage 1 to stage 2. This rating, which is relevant for pricing, is compared with the rating at the time of measurement. This ensures that only transactions for which there is a significant deviation from the originally expected migration 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.

KfW 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 taken into account in backward migration. The periods of good conduct are generally based on regulatory requirements (e.g. definition of

default). Additional periods of good conduct were also 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.

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 KfW uses 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.

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").

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

IFRS 9 defines contractual modifications as modifications of contractual cash flows. These can be caused by the credit rating or the market. In contrast, an adjustment of contractual payments agreed at the time the contract was concluded and thus intrinsic to the contract is not deemed a contractual modification.

In the case of a modification of contractual payments of a financial asset measured at amortised cost, an assessment is first made as to whether the asset is subject to partial or full derecognition. Partial derecognition is defined as owing to an event that affects the nominal value of the financial asset, such as (partial) waivers and unscheduled (partial) principal repayments, in particular. The following rules are applied to all other contractual modifications.

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 general IFRS 9 classification criteria. Derecognition resulting from substantial modification is not relevant for the “hold to collect” business model. In the case of substantial modification of credit-impaired financial assets (non-performing loans – “NPLs”), the impairment loss is adjusted at derecognition. The amount of adjustment is the difference between the previous net carrying amount of the derecognised asset and the fair value of the newly recorded asset. The reduction in loan loss provisions is then recorded as utilisation at the time of derecognition. There are no further gains or losses resulting from the derecognition.

There is no write-off for non-substantial contractual modifications that do not result in (partial) derecognition. A revaluation of the gross carrying amount of the modified financial instrument is performed instead. The resulting valuation difference is recognised in profit or loss as a modification gain or loss. The modification gain or loss reflects the effects on net present value of the contractually agreed upon change in cash flows. The original effective interest rate is applied for discounting cash flows. Then, on subsequent reporting dates, the original effective interest rate is applied to what is at that time the current (modified) cash flow for discounting. An amortisation result is calculated as the delta to the amortised costs of the previous reporting date on the basis of the amortised costs calculated using this method. This result is reported as a component of Net interest income. This therefore yields an amortisation amount that partially represents the original premium/discount but also includes amortisation of the modification gain/loss.

The modification list serves as the group-wide basis for identification of relevant contractual modifications. Differentiation between substantial and non-substantial modifications is made by means of qualitative analysis based on the cash flow criterion:

- If a contract modification does not fulfil the cash flow criterion, it is classified as substantial. This includes contractual modifications such as agreement on performance-related interest payments or payments after successful restructuring. Such contractual modifications are typically made in the context of intensive and problem loan management as part of complex restructuring.
- Changes in borrowers and currency without a contractual currency change option are also deemed substantial modifications.
- Any other contractual modifications that fulfil the cash flow criterion are not deemed substantial. These include less complex contractual modifications, such as interest rate adjustments, principal repayment deferrals, interest and repayment forbearance (interest rate unchanged).

Since a substantial modification usually means failure to fulfil the cash flow criterion, the newly recorded financial assets are subsequently measured at fair value and reported under the statement of financial position item Financial assets at fair value.

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. 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.

At KfW Group, modification gains and losses with no related derecognitions are reported net in a separate sub-item under the Net gains/losses from risk provisions item.

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 reporting date 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, KfW determines valuation adjustments 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.

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 fund 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 and no 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. At initial recognition, a financial guarantee contract is to be measured at fair value, 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. 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. KfW Group does not voluntarily designate financial guarantee contracts for measurement at fair value.

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 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
	<i>Loans and advances to customers</i>	Other receivables
		Money-market transactions
		Loans and advances
<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>	Bonds and other fixed-income securities
		Money-market transactions
		Loans and advances
	<i>Loans and advances to customers</i>	Promissory note loans
		Other receivables
		Money-market transactions
	<i>Securities and investments</i>	Loans and advances
		Promissory note loans
		Other receivables
		Bonds and other fixed-income securities
		Shares and other non-fixed income securities
		Equity investments
<i>Other derivatives</i>	Shares in non-consolidated subsidiaries	
	Interest-related derivatives	
	Cross-currency derivatives	
Financial liabilities at amortised cost	<i>Liabilities to banks</i>	Other derivatives
		Money-market transactions
	<i>Liabilities to customers</i>	Promissory note loans
		Other financial liabilities
	<i>Certificated liabilities</i>	Money-market transactions
		Promissory note loans
Financial liabilities at fair value	<i>Liabilities to banks</i>	Other financial liabilities
		Money-market transactions
		Promissory note loans
	<i>Liabilities to customers</i>	Other financial liabilities
		Money-market transactions
		Promissory note loans
	<i>Certificated liabilities</i>	Other financial liabilities
		Money-market issues
		Bonds and notes
	<i>Other derivatives</i>	Money-market transactions
		Promissory note loans
		Other financial liabilities
<i>Other derivatives</i>	Money-market transactions	
	Promissory note loans	
	Other financial liabilities	
<i>Other derivatives</i>	Money-market issues	
	Bonds and notes	
	Interest-related derivatives	
<i>Other derivatives</i>	Cross-currency derivatives	
	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. KfW 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 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 from 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 corresponding hedging instruments are presented in Financial assets at fair value or Financial liabilities at fair value and the changes – if not due to changes in KfW's own credit risk – 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. 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) 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.

(10) 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. KfW also charges fees for administrative services for other mandate agreements as well as for processing services and to a limited extent 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.

(11) 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.

(12) 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.

(13) Repurchase agreements

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. Interest is recorded in Interest expense in accordance with the respective term of the repurchase agreements.

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. Interest is recorded in Interest income in accordance with the respective conditions of the reverse repurchase agreements.

(14) Government grants

With regard to the pandemic-induced special programmes, KfW funds its activities, among other sources, via the ECB's TLTRO. KfW raised EUR 13.4 billion in June 2020 via TLTRO III operation 4, and EUR 1.4 billion in March 2021 via TLTRO III operation 7. The maximum term of TLTRO III transactions is three years. Participants whose eligible net lending in a prescribed reporting period is equal to or higher than their individual benchmark will receive an interest rate reduced by 50 bp (financing of overall -1%) for a specified period.

These additional reduced-interest grants must be accounted for in accordance with the accounting policies of IAS 20 "Accounting for Government Grants and Disclosure of Government Assistance". The negative interest rate benefit due to the grant may not be recognised until there is reasonable assurance that KfW will meet the related conditions and that the grants will be issued. The targets for the reporting period March 2020 to March 2021 were met and the reduced interest rate for the interest period June 2020 to June 2021 taken into account. KfW Group received a total of EUR 34 million in reduced interest grants in accordance with IAS 20 in 2021. The reduced interest grant was thus recognised in Net interest income on an accrual basis over the period in which the funding expenses to be compensated by the reduced rate grant were reported. KfW Group used the gross method for this purpose.

The bank repaid tranche 4 under TLTRO III in December 2021.

Funding via the TLTRO tranches resulted in positive effects from interest expense totalling EUR 109 million in financial year 2021.

(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 12 months, KfW utilises the relief provided for in IFRS 16.18 and does not recognise them.

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) 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 KfW 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.

KfW 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 at KfW 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 KfW Group, so the related special accounting rules do not apply. Provisions for pensions and similar obligations are financed in-house with sufficient 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 Arising from 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) 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 has created a fund for general banking risks. Additions to or reductions of the fund are shown under IFRS as appropriation of consolidated profit/loss.

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.

(20) 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 particularly concerns loans and equity investments to support developing countries under German Financial Cooperation, as well as measures to promote future technologies in the context of the Future Fund ("Zukunftsfonds"). The Federal Government provides the necessary funding, and implementation of the measures is underwritten by the German federal budget.

Fees from trust activities are recognised under Commission income.

Notes to the statement of comprehensive income

(21) Net interest income

Analysis of Net interest income

	2021	2020
	EUR in millions	EUR in millions
Interest and similar income from loans and advances to banks and customers	4,092	5,186
Similar income from off-balance sheet transactions	25	28
Interest income from securities and investments	58	110
Interest income from hedges recognised in the statement of financial position	-3,350	-3,304
Other interest income	-210	-143
Interest income from the effective interest method	615	1,876
Interest and similar income from loans and advances to banks and customers	-40	-25
Interest income from securities and investments	73	58
Interest income from Other derivatives	412	576
Other interest income	446	609
Interest income, total	1,061	2,485
Interest and similar expense for liabilities to banks and customers	-200	15
Interest expense for certificated liabilities	3,652	5,228
Interest expense from hedges recognised in the statement of financial position	-4,761	-5,171
Interest expense from Other derivatives	-180	-229
Other interest expense	164	95
Interest expense, total	-1,325	-62
Net interest income	2,386	2,547

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 144 million (2020: EUR 54 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 200 million (2020: EUR 243 million).

Interest income from stage 3 loan receivables in the amount of EUR 33 million (2020: EUR 37 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.

The group generates an atypical interest expense from liability hedges (floating rate liabilities), largely comprising certificated liabilities with corresponding swap transactions. This atypical interest expense was not allocated to the negative interest to be separately reported, as the hedged item contributes atypical interest expense. Due to the persistent low interest rate environment, the interest expense of the hedged items is overcompensated by the interest income from the corresponding hedging instruments, resulting in the total interest expense for financial year 2021 being atypical.

Interest income or expense from hedged items and derivatives being included in hedge accounting (means that), the 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

	2021	2020
	EUR in millions	EUR in millions
Interest income (gross)	1,421	2,758
Negative interest from financial assets	-360	-273
Interest expense (gross)	-679	326
Negative interest from financial liabilities	-647	-389
Net interest income	2,386	2,547

The negative interest contributions included in Interest income resulted from balances with central banks, loans and advances to banks and 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.

(22) Net gains/losses from risk provisions

Analysis of Risk provisions by transaction

	2021	2020
	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)	898	1,610
Expenses for additions to risk provisions	865	1,581
Direct write-offs	33	29
Expenses for risk provisions for securities and investments	12	12
Expenses for additions to risk provisions	12	12
Direct write-offs	0	0
Expenses for risk provisions	910	1,622
Income from risk provisions for lending business (Loans and advances to banks/customers and off-balance sheet lending transactions)	1,143	811
Income from the reversal of risk provisions	1,060	751
Income from recoveries of amounts previously written off	83	60
Income from risk provisions for securities and investments	13	7
Income from the reversal of risk provisions	13	7
Income from recoveries of securities and investments previously written off	0	0
Income from risk provisions	1,155	819
Net gains/losses from non-substantial contractual modifications	-22	-22
Other risk provisions for lending business	-27	44
Total	196	-781

(23) Net commission income

Analysis of Commission income

	2021	2020
	EUR in millions	EUR in millions
Revenue from contracts with customers	637	589
From mandate contractual arrangements with the Federal Government ¹⁾	582	540
Fee income from mandate agreements, processing activities and services	16	14
Fee income from the lending business	39	36
Other commission income	10	10
Financial guarantee contracts	0	0
Other	10	9
Commission income, total	647	599

¹⁾ Includes commission income in the amount of EUR 74 million (2020: EUR 68 million) from mandate contractual arrangements with the Federal Government in trust activities.

Commission income by segment in financial year 2021

2021	Mittelstands-bank & Private Kunden (SME Bank & Private Clients)	Individual-finanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	KfW Capital	Export and project finance	Promotion of developing countries and emerging economies	Financial markets	Head office	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Commission income	310	36	6	33	259	0	3	647
of which Federal Government	307	33	6	0	236	0	0	582
%	99%	92%	100%	0%	91%	0%	0%	90%

Commission income by segment in financial year 2020

2020	Mittelstands-bank & Private Kunden (SME Bank & Private Clients)	Individual-finanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	KfW Capital	Export and project finance	Promotion of developing countries and emerging economies	Financial markets	Head office	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Commission income	281	42	0	28	244	0	2	599
of which Federal Government	278	38	0	0	224	0	0	540
%	99%	89%	0%	0%	91%	0%	0%	90%

Out-of-period income

	2021 EUR in millions	2020 EUR in millions
Revenue in current period resulting from services performed in the previous period(s)	31	17

Analysis of Commission expense

	2021	2020
	EUR in millions	EUR in millions
Commission expense for lending business	10	10
Commission expense for credit derivatives	0	0
Other commission expense	14	16
Commission expense	24	26

(24) 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 include cases of hedge ineffectiveness
	2021	2020	
	EUR in millions	EUR in millions	
Micro fair value hedges	-5	-25	Net gains/losses from hedge accounting
Interest risk	14	-27	-
Interest-currency risk	-19	2	-
Macro fair value hedges	-105	41	Net gains/losses from hedge accounting
Interest risk	-105	41	-
Total	-110	16	Net gains/losses from hedge accounting

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

	2021	2020
	EUR in millions	EUR in millions
Hedging of securities and investments	4	5
Hedging of liabilities to banks and customers	-1	-29
Hedging of certificated liabilities	-8	-1
Subtotal: Effectiveness of hedges	-5	-25
Amortisation of value adjustments	0	0
Total	-5	-25

**Gross analysis of valuation gains/losses from micro fair value hedge accounting:
Comparison of hedged items and hedging instruments in financial year 2021**

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Hedging of securities and investments	-510	514	4
Hedging of liabilities to banks and customers	481	-482	-1
Hedging of certificated liabilities	8,628	-8,637	-8
Total	8,600	-8,605	-5

**Gross analysis of valuation gains/losses from micro fair value hedge accounting:
Comparison of hedged items and hedging instruments in financial year 2020**

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Hedging of securities and investments	180	-175	5
Hedging of liabilities to banks and customers	-88	59	-29
Hedging of certificated liabilities	-4,412	4,411	-1
Total	-4,320	4,295	-25

**Gross analysis of net gains/losses from macro fair value hedge accounting:
Comparison of hedged items and hedging instruments in financial year 2021**

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Net gains/losses from macro fair value hedge accounting	-7,412	7,307	-105

**Gross analysis of net gains/losses from macro fair value hedge accounting:
Comparison of hedged items and hedging instruments in financial year 2020**

	Hedged items	Hedging instruments	Effectiveness of hedges
	EUR in millions	EUR in millions	EUR in millions
Net gains/losses from macro fair value hedge accounting	1,797	-1,756	41

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.

(25) 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

	2021	2020
	EUR in millions	EUR in millions
Loans and advances to banks/customers	28	2
Loans and advances	28	2
Miscellaneous receivables (money market transactions, promissory note loans and Other receivables)	0	0
Securities and investments	752	-312
Bonds and other fixed-income securities	0	0
Shares and other non-fixed income securities	0	0
Equity investments	752	-312
Liabilities to banks and customers	78	8
Certificated liabilities	536	-238
Other derivatives	-620	112
Financial derivatives not qualifying for hedge accounting	-620	112
Credit derivatives	0	0
Foreign currency translation	-7	0
Total	767	-428

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 1 million in financial year 2021 (2020: EUR 18 million).

Net gains/losses from liabilities measured at fair value include 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 embedded derivatives from financial liabilities that are bifurcated; 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**

	2021	2020
	EUR in millions	EUR in millions
Borrowings	614	-230
Hedging instruments	-716	294
Total (effectiveness of economic hedges)	-102	63

(26) Net gains/losses from disposal of financial assets at amortised cost

	2021	2020
	EUR in millions	EUR in millions
Income from the disposal of financial assets at amortised cost	0	0
Expense from the disposal of financial assets at amortised cost	4	1
Total	-4	-1

Income and expense from the disposal of financial assets at amortised cost resulted from the sale of loans on the secondary market.

(27) Net gains/losses from investments accounted for using the equity method

	2021	2020
	EUR in millions	EUR in millions
Net gains/losses from investments accounted for using the equity method	14	31

(28) Administrative expense

Analysis of Administrative expense

	2021	2020
	EUR in millions	EUR in millions
Wages and salaries	657	591
Social security contributions	98	94
Expenses for pension provision and other employee benefits	88	85
Personnel expense	842	770
Other administrative expenses	499	440
Depreciation, amortisation and impairment of property, plant and equipment and intangible assets	125	131
<i>of which impairments of rights of use arising from leases</i>	10	22
Non-personnel expense	624	572
Total	1,466	1,342

Current impairments of rights of use arising from leases includes an impairment of rights of use in the amount of EUR 0 million (2020: EUR 10 million).

(29) Net other operating income or loss

Analysis of Net other operating income or loss

	2021	2020
	EUR in millions	EUR in millions
Other operating income	34	26
Other operating expense	86	41
Total	-53	-14

Other operating income primarily includes income from the reversal of other provisions in the amount of EUR 12 million (2020: EUR 10 million).

The Other operating expense item includes contributions payable by KfW IPEX-Bank to the restructuring fund for banks in the amount of EUR 14 million (2020: EUR 14 million). KfW is not obligated to contribute to the fund in accordance with Section 2 of the Restructuring Fund Act (*Restrukturierungsfondsgesetz – "RStrukFG"*). This item also includes expenses of EUR 13 million (2020: EUR 0 million) from the increase in KfW Stiftung's foundation capital.

(30) Taxes on income

Analysis of Taxes on income by component

	2021	2020
	EUR in millions	EUR in millions
Current taxes on income	49	16
Deferred taxes	88	59
Total	137	76

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

	2021	2020
	EUR in millions	EUR in millions
Profit/loss from operating activities (before taxes)	2,353	600
Group income tax rate	0%	0%
Calculated income tax expense in the financial year	0	0
Effects of tax rate differentials within the group	129	-131
Effect of tax rate changes	0	0
Effects of previous year taxes recorded in the reporting year	6	-9
Effects of non-deductible taxes on income	2	3
Effects of non-deductible business expenses	4	3
Effects of tax-free income	-67	1
Trade tax add-ons/reductions	1	1
Permanent accounting differences	111	30
Effects of changes in recognised deferred tax assets	-49	178
Reported taxes on income	137	76

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%.

Segment reporting

(31) 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 KfW 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
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
Promotion of developing countries and emerging economies	<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 – Financing provided by DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH (private sector promotion)
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 line 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 interest rate and spread management. 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 for the processing of small and micro loans (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 for promotional grants awarded as a supplement to the lending business (included in Other operating expense).

- 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.
- 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 11 for details of 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 2021

	Mittelstands-bank & Private Kunden (SME Bank & Private Clients)	Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)	KfW Capital ¹⁾	Export and project finance ¹⁾	Promotion of developing countries and emerging economies ¹⁾	Financial markets	Head office	Reconciliation/consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Volume of new commitments	72,980	9,465	502	13,644	10,145	527	0	-212	107,050
Net interest income (before promotional expense)	463	107	0	797	413	347	405	0	2,531
Net commission income (before promotional expense)	309	35	6	33	253	-4	2	0	634
Administrative expense (before promotional expense)	430	77	11	289	497	97	50	0	1,452
Operating result before valuation (before promotional expense)	342	65	-6	540	169	246	357	0	1,712
Risk provisions for lending business	-2	5	0	94	102	-4	0	0	196
Valuation result (before promotional expense)	1	63	211	29	471	21	-163	0	633
Profit/loss from operating activities (before promotional expense)	341	133	205	663	742	263	194	-1	2,541
Promotional expense	182	6	0	0	0	0	0	0	188
Taxes on income	0	0	0	40	5	0	92	0	137
Consolidated profit	159	127	205	622	737	263	102	-1	2,215

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 16.4 million, Export and project finance EUR -8.3 million and Promotion of developing countries and emerging economies EUR 6.1 million.

Segment reporting by business sector for financial year 2020

	Mittelstands-bank & Private Kunden (SME Bank & Private Clients)	Individualfinanzierung & Öffentliche Kunden ^{1), 2)} (Customised Finance & Public Clients)	KfW Capital ^{1), 2)}	Export and project finance ^{1), 2)}	Promotion of developing countries and emerging economies ^{1), 2)}	Financial markets ¹⁾	Head office ¹⁾	Reconciliation/consolidation	KfW Group
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Volume of new commitments	86,274	19,213	871	16,584	12,394	400	0	-468	135,269
Net interest income (before promotional expense) ¹⁾	427	100	-1	811	423	364	477	1	2,601
Net commission income (before promotional expense)	281	41	0	27	236	-5	2	0	584
Administrative expense (before promotional expense)	422	85	8	255	444	91	26	0	1,330
Operating result before valuation (before promotional expense)¹⁾	287	56	-8	583	214	269	453	1	1,855
Risk provisions for lending business	-109	-26	0	-414	-233	5	0	0	-777
Valuation result (before promotional expense)	0	31	49	-19	-383	4	-70	-1	-390
Profit/loss from operating activities (before promotional expense)¹⁾	178	61	41	150	-402	278	383	-1	688
Promotional expense ¹⁾	83	5	0	0	0	0	0	0	88
Taxes on income	0	0	0	8	2	0	65	0	76
Consolidated profit¹⁾	95	56	41	142	-404	278	318	-1	525

¹⁾ Adjusted prior-year figures due to change in internal reporting (see Note 3)

²⁾ The valuation result of the business sectors includes the following net gains/losses from investments accounted for using the equity method: Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients) EUR -9.8 million, KfW Capital EUR 1.0 million, Export and project finance EUR 31.3 million and Promotion of developing countries and emerging economies EUR 8.3 million.

The reconciliation/consolidation column includes all adjustments that were necessary to reconcile segment information with the aggregated information for KfW 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.

(32) 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 2021

	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	1,343	423	620	0	2,386
Net commission income	343	32	247	0	623
Segment income	1,687	455	867	0	3,009

Segment reporting by region for financial year 2020

	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	1,472	419	656	1	2,547
Net commission income	319	30	224	0	573
Segment income	1,791	449	880	1	3,120

The reconciliation/consolidation column includes all adjustments that were necessary to reconcile segment information with the aggregated information for KfW Group. The amounts in this column result solely from minimal consolidation effects.

Notes to the statement of financial position

(33) Cash reserves

Analysis of Cash reserves

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Cash	0	0
Balances with central banks	42,439	44,178
Total	42,439	44,178

(34) Financial assets at amortised cost

Analysis of Financial assets at amortised cost by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Loans and advances to banks		
Money market transactions	5,510	2,782
Loans and advances	301,759	287,687
Promissory note loans	22	21
Other receivables	1,197	5,277
Loans and advances to customers		
Money market transactions	0	680
Loans and advances	129,278	128,539
Promissory note loans	1,205	1,616
Other receivables	420	364
Securities and investments		
Bonds and other fixed-income securities	35,784	35,790
Total gross	475,175	462,756
Less risk provisions for		
Loans and advances to banks	-238	-306
Loans and advances to customers	-1,705	-1,824
Securities and investments	-10	-11
Total net	473,221	460,615

The receivables from reverse repurchase agreements (reverse “repos”) and cash collateral pledged are included in Loans and advances to banks – Other receivables.

Analysis of Loans and advances by underwriting liability type

	Loans and advances to banks		Loans and advances to customers	
	31 Dec. 2021 EUR in millions	31 Dec. 2020 EUR in millions	31 Dec. 2021 EUR in millions	31 Dec. 2020 EUR in millions
Direct loans	73,170	72,833	118,608	120,533
On-lent customer loans with full underwriting borne by the on-lending commercial bank	201,027	193,036	0	0
On-lent customer loans with partial underwriting borne by the on-lending commercial bank	27,894	22,289	0	0
On-lent customer loans without underwriting borne by the on-lending commercial bank	0	0	8,205	5,736
Customer loans on-lent through insurance companies with full underwriting borne by the on-lending insurance company	0	0	1,210	888
Direct and on-lent subordinated loans	279	266	1,287	1,428
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	-610	-737	-32	-46
Total	301,759	287,687	129,278	128,539

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.

(35) Gross carrying amounts

Development of gross carrying amounts of financial assets at amortised cost – Loans and advances to banks

	Financial year 2021				Financial year 2020			
	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.	294,009	1,522	235	295,766	281,429	265	209	281,902
Transfer from stage 2 and stage 3 to stage 1	544	-544	0	0	-2	2	0	0
Transfer from stage 1 and stage 3 to stage 2	-843	849	-5	0	-1,153	1,168	-15	0
Transfer from stage 1 and stage 2 to stage 3	-464	-72	536	0	-165	-18	183	0
Additions – New business and increased utilisation ¹⁾	101,850	397	23	102,270	320,273	284	33	320,590
Disposals	-90,135	-281	-168	-90,584	-305,292	-160	-170	-305,623
<i>of which financial assets written off</i>	-90,135	-281	-160	-90,576	-305,292	-160	-160	-305,613
<i>of which default on receivables</i>	0	0	-8	-8	0	0	-10	-10
Changes from non-substantial contractual modification	-13	0	2	-11	-8	0	-1	-10
Exchange rate and other changes	1,013	8	26	1,047	-1,073	-17	-4	-1,094
As of 31 Dec.	305,962	1,880	648	308,489	294,009	1,522	235	295,766

¹⁾ Additions of recently purchased or issued financial assets and current business will be disclosed together with effect from financial year 2021 (see Note 3)

Development of gross carrying amounts of financial assets at amortised cost – Loans and advances to customers

	Financial year 2021				Financial year 2020			
	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.	100,069	12,474	18,656	131,199	97,755	4,708	17,335	119,798
Transfer from stage 2 and stage 3 to stage 1	2,041	-2,015	-26	0	679	-678	-1	0
Transfer from stage 1 and stage 3 to stage 2	-5,123	19,969	-14,846 ²⁾	0	-10,845	10,878	-33	0
Transfer from stage 1 and stage 2 to stage 3	-953	-813	1,766	0	-1,742	-651	2,393	0
Additions – New business and increased utilisation ¹⁾	26,151	714	117	26,982	32,149	1,103	269	33,522
Disposals	-22,383	-6,070	-1,253	-29,707	-16,236	-2,155	-1,149	-19,541
<i>of which financial assets written off</i>	-22,379	-6,070	-1,123	-29,571	-16,234	-2,153	-955	-19,342
<i>of which default on receivables</i>	-4	-1	-131	-136	-2	-2	-194	-198
Changes from non-substantial contractual modification	0	-13	0	-13	-10	-3	1	-12
Exchange rate and other changes	1,796	528	116	2,440	-1,681	-729	-158	-2,567
As of 31 Dec.	101,598	24,773	4,531	130,902	100,069	12,474	18,656	131,199

¹⁾ Additions of recently purchased or issued financial assets and current business will be disclosed together with effect from financial year 2021 (see Note 3)

²⁾ The transfer from stage 3 to stage 2 is primarily due to a loan guaranteed by the Federal Government.

Development of gross carrying amounts of financial assets at amortised cost – Securities and investments

	Financial year 2021				Financial year 2020			
	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.	35,725	0	65	35,790	34,440	0	77	34,517
Additions – New business and increased utilisation ¹⁾	23,330	0	0	23,330	19,874	0	0	19,874
Disposals	-22,866	0	-65	-22,931	-18,617	0	-12	-18,629
<i>of which financial assets written off</i>	-22,866	0	-65	-22,931	-18,617	0	-12	-18,629
Exchange rate and other changes	-405	0	0	-406	28	0	0	28
As of 31 Dec.	35,784	0	0	35,784	35,725	0	65	35,790

¹⁾ Additions of recently purchased or issued financial assets and current business will be disclosed together with effect from financial year 2021 (see Note 3)

Development of gross carrying amounts of off-balance sheet lending transactions

	Financial year 2021				Financial year 2020			
	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.	102,790	5,103	257	108,151	84,151	667	310	85,128
Transfer from stage 2 and stage 3 to stage 1	253	-225	-28	0	71	-71	0	0
Transfer from stage 1 and stage 3 to stage 2	-86	86	0	0	-448	448	0	0
Transfer from stage 1 and stage 2 to stage 3	-19	-35	53	0	-58	-9	68	0
Additions – New business and increased utilisation ¹⁾	1,233	51	3	1,287	1,180	54	5	1,239
Disposals	-718	-120	-18	-857	-826	-77	-36	-940
<i>of which financial assets written off</i>	-718	-120	-18	-857	-826	-77	-36	-940
Exchange rate and other changes	5,730	-136	45	5,640	18,721	4,092	-89	22,723
As of 31 Dec.	109,184	4,725	312	114,220	102,790	5,103	257	108,151

¹⁾ Additions of recently purchased or issued financial assets and current business will be disclosed together with effect from financial year 2021 (see Note 3)

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 253 million as of the reporting date (31 Dec. 2020: EUR 14 million).

(36) Risk provisions

Development of risk provisions for financial assets at amortised cost – Loans and advances to banks

	Financial year 2021				Financial year 2020			
	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.	143	95	68	306	124	24	93	242
Transfer from stage 2 and stage 3 to stage 1	27	-27	0	0	7	-7	0	0
Transfer from stage 1 and stage 3 to stage 2	-4	4	0	0	-24	24	0	0
Transfer from stage 1 and stage 2 to stage 3	-1	-6	7	0	-3	-3	6	0
Additions	46	16	38	99	99	71	39	208
Utilisation	0	0	-7	-7	0	0	-48	-48
Reversals	-111	-50	-11	-172	-56	-10	-23	-89
Net present value effect	0	0	3	3	0	0	2	2
Exchange rate and other changes	3	2	3	9	-4	-5	1	-8
As of 31 Dec.	104	33	101	238	143	95	68	306

Development of risk provisions for financial assets at amortised cost – Loans and advances to customers

	Financial year 2021				Financial year 2020			
	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.	243	326	1,255	1,824	184	186	1,058	1,428
Transfer from stage 2 and stage 3 to stage 1	88	-89	1	0	96	-96	0	0
Transfer from stage 1 and stage 3 to stage 2	-3	25	-21	0	-45	60	-15	0
Transfer from stage 1 and stage 2 to stage 3	-10	-78	88	0	-20	-67	87	0
Additions	149	249	242	641	257	406	521	1,184
Utilisation	-1	0	-171	-172	0	0	-238	-239
Reversals	-283	-169	-276	-727	-220	-141	-169	-530
Net present value effect	0	0	82	82	0	0	67	67
Exchange rate and other changes	8	11	39	57	-9	-23	-54	-86
As of 31 Dec.	192	275	1,238	1,705	243	326	1,255	1,824

Development of risk provisions for financial assets at amortised cost – Securities and investments

	Financial year 2021				Financial year 2020			
	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.	11	0	0	11	6	0	0	6
Additions	12	0	0	12	12	0	0	12
Reversals	-13	0	0	-13	-8	0	0	-8
As of 31 Dec.	10	0	0	10	11	0	0	11

Development of Risk provisions for lending business (off-balance sheet lending transactions)

	Financial year 2021				Financial year 2020			
	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.	49	58	19	126	36	28	10	73
Transfer from stage 2 and stage 3 to stage 1	21	-21	0	0	22	-22	0	0
Transfer from stage 1 and stage 3 to stage 2	-2	2	0	0	-3	3	0	0
Transfer from stage 1 and stage 2 to stage 3	0	-13	13	0	-1	-2	3	0
Additions	60	59	5	125	87	83	18	188
Reversals	-98	-39	-23	-160	-90	-31	-12	-132
Exchange rate and other changes	1	2	0	3	-1	-2	0	-3
As of 31 Dec.	32	48	15	94	49	58	19	126

Provisions for losses on loans and advances also include money market investments and reverse repos.

In the reporting year, EUR 86 million (2020: EUR 69 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 62 million as of the reporting date (31 Dec. 2020: EUR 61 million).

(37) Financial assets at fair value

Analysis of Financial assets at fair value by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Loans and advances to banks – FVM		
Loans and advances	14	38
Other receivables	35	0
Loans and advances to customers – FVM		
Loans and advances	9,572	9,616
Securities and investments – FVM		
Equity investments	4,015	3,016
Shares in non-consolidated subsidiaries	68	48
Other derivatives – FVM		
Interest-related derivatives	3,122	4,751
Cross-currency derivatives	2,259	607
Total	19,085	18,077

Cross-currency swaps are presented under Cross-currency derivatives.

Other derivatives includes derivatives with positive fair values of EUR 21 million (31 Dec. 2020: EUR 11 million) attributable to embedded derivatives that are bifurcated.

(38) Value adjustments from macro fair value hedge accounting

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Value adjustments to assets under macro fair value hedge accounting	4,609	12,220

The fair values attributable to hedged risks in the hedged portfolios in the at amortised cost measurement category are included in this item.

(39) Derivatives designated for hedge accounting

Analysis of derivatives with positive fair values designated for hedge accounting by type of hedging relationship

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Micro fair value hedge accounting	8,449	7,934
Macro fair value hedge accounting	29	24
Total	8,478	7,958

Analysis of derivatives with positive fair values designated for hedge accounting by type of hedging instrument

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Interest-related derivatives	2,990	5,374
Cross-currency derivatives	5,488	2,584
Total	8,478	7,958

Only Interest-related derivatives are designated for macro fair value hedge accounting. Cross-currency swaps are presented under Cross-currency derivatives.

(40) Investments accounted for using the equity method

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Investments accounted for using the equity method	597	613
Total	597	613

The note regarding “Disclosures on shareholdings” includes a list of Investments accounted for using the equity method.

(41) Non-current assets held for sale

This item from the statement of financial position includes equity investments of DEG with a fair value of EUR 119 million (31 Dec. 2020: EUR 81 million) in the areas of banks and companies and the regions of Asia, Africa and North America in the current financial year, and Asia and Latin America in the previous financial year, 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 “Promotion of developing countries and emerging economies”. The equity investments are intended to be sold within the next twelve months.

It was not possible in 2021 to sell, as planned, two equity investments recognised as assets held for sale in the consolidated financial statements as of 31 December 2020. This was primarily due to the effects of the coronavirus pandemic. This decreased probability of sale resulted in an accounting reclassification, but had no impact on the earnings position.

(42) Property, plant and equipment

Analysis of Property, plant and equipment by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Land and buildings	839	857
Plant and equipment	80	81
Rights of use arising from leases	50	60
Other property, plant and equipment	2	1
Total	971	999

Additions to rights of use arising from leases amounted to EUR 0 million (2020: EUR 15 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 2021

	Acquisition/ production cost	Accumulated depreciation, impairment and reversal of impairment losses	Net carrying amount
	EUR in millions	EUR in millions	EUR in millions
Carrying amount as of 1 Jan. 2021	1,527	-528	999
Additions/reversals of impairment losses	37	0	37
Disposals	-51	50	-1
Depreciation	0	-63	-63
Impairment losses	0	0	0
Carrying amount as of 31 Dec. 2021	1,513	-541	971

Development of Property, plant and equipment in financial year 2020

	Acquisition/ production cost	Accumulated depreciation, impairment and reversal of impairment losses	Net carrying amount
	EUR in millions	EUR in millions	EUR in millions
Carrying amount as of 1 Jan. 2020	1,487	-466	1,021
Additions/reversals of impairment losses	57	0	57
Disposals	-17	15	-2
Depreciation	0	-67	-67
Impairment losses	0	-10	-10
Carrying amount as of 31 Dec. 2020	1,527	-528	999

(43) Intangible assets

Analysis of Intangible assets by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Software	135	122
<i>Purchased software</i>	66	72
<i>Internally generated software</i>	69	50
Other intangible assets	9	50
Total	144	172

Other intangible assets include, in particular, software under development.

Development of Intangible assets in financial year 2021

	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. 2021	498	-326	172
Additions/reversals of impairment losses	35	0	35
Disposals	-87	85	-2
Amortisation	0	-60	-60
Impairment losses	0	-2	-2
Carrying amount as of 31 Dec. 2021	446	-302	144

Development of Intangible assets in financial year 2020

	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. 2020	466	-277	188
Additions/reversals of impairment losses	38	0	38
Disposals	-5	5	0
Amortisation	0	-54	-54
Impairment losses	0	0	0
Carrying amount as of 31 Dec. 2020	498	-326	172

(44) Income tax assets

Analysis of Income tax assets

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Current income tax assets	16	15
Deferred income tax assets	490	698
Total	506	714

Current income tax assets result from creditable taxes (investment income tax/solidarity surcharge) and tax receivables from advance tax payments during financial year 2021.

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 2022–2025. As of 31 December 2021, the volume of deferred tax assets not recognised was EUR 111 million (31 Dec. 2020: EUR 45 million) relating to loss carryforwards, and EUR 22 million (31 Dec. 2020: EUR 133 million) relating to accounting issues.

Composition of deferred tax assets by statement of financial position item

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Financial assets (at amortised cost and at fair value)	105	91
Intangible assets	5	10
Financial liabilities at fair value – Other derivatives	270	425
Provisions	77	75
Other statement of financial position items	17	9
Tax loss carryforwards	16	88
Subtotal	490	698
Offset against deferred tax liabilities	0	0
Total	490	698

(45) Other assets

Analysis of Other assets

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Other assets and receivables	725	720
Prepaid expenses and deferred charges	69	38
Total	794	758

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

	2021	2020
	EUR in millions	EUR in millions
As of 1 Jan.	1	7
Additions	2	1
Disposals	-1	-7
As of 31 Dec.	2	1

(46) Financial liabilities at amortised cost

Analysis of Financial liabilities at amortised cost by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Liabilities to banks		
Money market transactions	1,327	2,477
Promissory note loans	1,203	1,682
Other financial liabilities	10,968	18,145
Liabilities to customers		
Money market transactions	269	218
Promissory note loans	38,372	41,129
Other financial liabilities	5,053	5,872
Certificated liabilities		
Money market issues	49,992	41,293
Bonds and notes	389,202	373,051
Total	496,385	483,867

Liabilities from cash collateral received are included in Other financial liabilities.

New securities with a nominal volume of EUR 217.5 billion were issued during the reporting period (2020: EUR 215.0 billion), including money market instruments, which are to be measured at amortised cost. The volume of repayments due to maturity during the reporting period amounted to EUR 194.5 billion (nominal) (2020: EUR 215.4 billion) and the volume of early repurchases to EUR 0.7 billion (nominal) (2020: EUR 0.1 billion).

(47) Financial liabilities at fair value

Analysis of Financial liabilities at fair value by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Liabilities to banks – FVD		
Promissory note loans	255	266
Liabilities to customers – FVD		
Promissory note loans	1,003	1,300
Certificated liabilities – FVD		
Bonds and notes	8,416	10,924
Other derivatives – FVM		
Interest-related derivatives	877	1,271
Cross-currency derivatives	933	2,470
Total	11,484	16,231

As in the previous year, there were no new issues in the reporting period to be measured at fair value. The volume of repayments due to maturity during the reporting period amounted to EUR 2.6 billion (nominal) (2020: EUR 0.2 billion) and the volume of early repurchases to EUR 0.0 billion (nominal) (2020: EUR 0.0 billion).

Cross-currency swaps are presented under Cross-currency derivatives.

Other derivatives include derivatives with negative fair values of EUR 12 million (31 Dec. 2020: EUR 20 million) attributable to embedded derivatives that are bifurcated.

(48) Value adjustments from macro fair value hedge accounting

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Value adjustments to liabilities under macro fair value hedge accounting	37	57

The fair values attributable to hedged risks in the hedged portfolios in the at amortised cost measurement category are included in this item.

(49) Derivatives designated for hedge accounting

Analysis of derivatives with negative fair values designated for hedge accounting by type of hedging relationship

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Micro fair value hedge accounting	2,181	5,750
Macro fair value hedge accounting	2,373	4,160
Total	4,554	9,910

Analysis of derivatives with negative fair values designated for hedge accounting by type of hedging instrument

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Interest-related derivatives	3,163	4,317
Cross-currency derivatives	1,390	5,594
Total	4,554	9,910

(50) Risk provisions

Analysis of Provisions by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Provisions for pensions and similar commitments	2,556	2,687
Provisions for credit risks	94	126
Other provisions	926	731
Total	3,576	3,543

Development of Provisions for pensions and similar commitments in financial year 2021

	Defined benefit obligations	Early retirement	Partial retirement	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2021	2,616	60	11	2,687
Additions	113	0	1	114
<i>Current service cost</i>	86	0	1	87
<i>Interest cost</i>	27	0	0	27
Actuarial gains and losses	-182	0	0	-182
<i>Changes in demographic assumptions</i>	0	0	0	0
<i>Changes in financial assumptions</i>	-155	0	0	-155
<i>Changes in experience adjustments</i>	-27	0	0	-27
Utilisation	-55	-8	-5	-68
Reversals	0	0	0	0
Contributions by members (recognised in equity)	5	0	0	5
As of 31 Dec. 2021	2,496	53	7	2,556

The average expected residual term of the defined-benefit pension obligations is 20.3 years as of 31 December 2021 (31 Dec. 2020: 21.1 years).

Development of Provisions for pensions and similar commitments in financial year 2020

	Defined benefit obligations	Early retirement	Partial retirement	Total
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2020	2,424	84	14	2,523
Additions	113	0	1	114
<i>Current service cost</i>	80	0	1	81
<i>Past service cost</i>	0	0	0	0
<i>Interest cost</i>	33	0	0	33
<i>Other additions</i>	0	0	0	0
Actuarial gains and losses	126	0	0	126
<i>Changes in demographic assumptions</i>	-1	0	0	-1
<i>Changes in financial assumptions</i>	168	0	0	168
<i>Changes in experience adjustments</i>	-41	0	0	-41
Utilisation	-52	-9	-5	-66
Reversals	0	-14	0	-14
Transfers	0	0	0	0
Contributions by members (recognised in equity)	6	0	0	6
Changes in consolidated group	0	0	0	0
As of 31 Dec. 2020	2,616	60	11	2,687

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. 2021	31 Dec. 2020
Technical discount rate	1.32	1.02
Rate of salary increases	2.20	2.20
Rate of pension increases	2.50	2.50
Rate of staff turnover	2.29	2.30

The technical discount rate as of 31 December 2021 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 2021

	Difference	Change in defined benefit obligations	Difference	Change in defined benefit obligations
		EUR in millions		EUR in millions
Life expectancy	+1 year	120	-1 year	-120
Technical discount rate	+0.25%	-121	-0.25%	130
Rate of salary increases	+0.50%	15	-0.50%	-14
Rate of pension increases	+0.50%	176	-0.50%	-94
Rate of staff turnover	+1.00%	-2	-1.00%	3

Sensitivity of defined benefit pension obligations as of 31 December 2020

	Difference	Change in defined benefit obligations	Difference	Change in defined benefit obligations
		EUR in millions		EUR in millions
Life expectancy	+1 year	118	-1 year	-117
Technical discount rate	+0.25%	-133	-0.25%	144
Rate of salary increases	+0.50%	18	-0.50%	-17
Rate of pension increases	+0.50%	185	-0.50%	-100
Rate of staff turnover	+1.00%	-3	-1.00%	3

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 2021

	Obligations to employees	Other provisions	Total
	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2021	37	694	731
Additions	4	254	258
<i>Other additions</i>	4	253	257
Utilisation	-4	-46	-50
Reversals	0	-12	-12
As of 31 Dec. 2021	36	890	926

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 69 million (31 Dec. 2020: EUR 10 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 Arising from 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 2020

	Obligations to employees	Other provisions	Total
	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2020	37	702	739
Additions	3	53	57
<i>Interest cost</i>	0	0	0
<i>Other additions</i>	3	53	56
Utilisation	-3	-48	-52
Reversals	0	-13	-13
As of 31 Dec. 2020	37	694	731

(51) Income tax liabilities

Analysis of Income tax liabilities

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Current income tax liabilities	29	31
Deferred income tax liabilities	308	418
Total	337	450

Current income tax liabilities as of 31 December 2021 primarily consist of tax provisions at the level of taxable companies included in KfW 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. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Financial assets at fair value – Other derivatives	275	404
Other statement of financial position items	33	14
Total	308	418

(52) Other liabilities

Analysis of Other liabilities

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Other financial liabilities	273	401
Deferred income	50	57
Lease liabilities	59	72
Total	382	529

Deferred income includes liabilities resulting from contractual obligations (“contract liabilities” in accordance with IFRS 15). These developed as follows:

Development of liabilities from contractual obligations

	2021	2020
	EUR in millions	EUR in millions
As of 1 Jan.	38	37
Additions	17	8
Disposals	-15	-11
As of 31 Dec.	41	34

(53) Equity

Analysis of Equity

	31 Dec. 2021	31 Dec. 2020
	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	22,026	19,411
<i>Statutory reserve under Article 10 (2) KfW Law</i>	1,875	1,875
<i>Special reserve under Article 10 (3) KfW Law</i>	14,755	12,971
<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>	5,374	4,544
Fund for general banking risks	200	600
Revaluation reserves	-957	-1,151
<i>Valuation result from the change in own credit risk of liabilities designated at fair value through profit or loss</i>	-131	-153
<i>Actuarial gains and losses from defined-benefit pension obligations (after tax)</i>	-826	-998
Total	34,207	31,797

Equity forms the basis for the capital available for covering risks, which are 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.

KfW's net income amounting to EUR 1,784 million was used to increase the special reserve under Article 10 (3) of the KfW Law.

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

(54) 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 2021

	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	3,764 ¹⁾	0	326	120	0	-3,149	1,061
Interest expense	-145	-2,877	382	-203	-386	4,582	1,354
Net gains/losses from risk provisions	196	0	0	0	0	0	196
Commission income	8	0	0	0	0	0	8
Commission expense	-10	-4	-1	0	0	0	-15
Net gains/ losses from hedge accounting	-7,940	9,128	0	0	0	-1,297	-110
Net gains/losses from other financial instruments at fair value through profit or loss	0	0	-389	549	614	0	774
Net gains/losses from disposal of financial assets at amortised cost	-4	0	0	0	0	0	-4
Net other operating income	0	0	0	0	0	0	0
Change in revaluation reserves	0	0	0	0	23	0	23
Total	-4,131	6,247	318	465	251	137	3,286

¹⁾ Includes interest income from financial guarantees of EUR 25 million.

Gains and losses from financial instruments by measurement category in financial year 2020

	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	4,799 ¹⁾	0	186	423	0	-2,923	2,485
Interest expense	-54	-4,408	428	-200	-462	4,793	96
Net gains/losses from risk provisions	-781	0	0	0	0	0	-781
Commission income	8	0	0	0	0	0	8
Commission expense	-10	-5	-2	0	0	0	-17
Net gains/ losses from hedge accounting	1,959	-4,482	0	0	0	2,539	16
Net gains/losses from other financial instruments at fair value through profit or loss	0	0	460	-658	-230	0	-428
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	-114	0	-114
Total	5,920	-8,896	1,072	-435	-806	4,409	1,263

¹⁾ Includes interest income from financial guarantees of EUR 28 million.

(55) 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.

The fair value of the additional balances with central banks recognised in Cash reserves is their carrying amount.

Fair value of financial instruments by valuation method as of 31 December 2021

	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						
Financial assets at amortised cost						
Loans and advances to banks	308,251	0	6,270	305,404	311,675	3,424
Loans and advances to customers	129,197	0	0	133,323	133,323	4,126
Securities and investments	35,774	28,578	3,485	3,809	35,872	98
Financial assets at fair value						
Loans and advances to banks – FVM	49	0	0	49	49	0
Loans and advances to customers – FVM	9,572	0	9,437	135	9,572	0
Securities and investments – FVM	4,083	111	3,352	619	4,083	0
Other derivatives – FVM	5,381	0	4,765	616	5,381	0
Value adjustments from macro fair value hedge accounting	4,609	n.a.	n.a.	n.a.	n.a.	-4,609
Derivatives designated for hedge accounting	8,478	0	8,478	0	8,478	0
Non-current assets held for sale	119	0	68	51	119	0
Total	505,512	28,690	35,855	444,007	508,552	3,040
Liabilities and equity						
Financial liabilities at amortised cost						
Liabilities to banks	13,498	0	13,537	2	13,539	41
Liabilities to customers	43,694	0	43,694	42	43,736	43
Certificated liabilities	439,194	378,227	62,389	0	440,616	1,422
Financial liabilities at fair value						
Liabilities to banks – FVD	255	0	255	0	255	0
Liabilities to customers – FVD	1,003	0	1,003	0	1,003	0
Certificated liabilities – FVD	8,416	5,223	3,193	0	8,416	0
Other derivatives – FVM	1,810	0	1,723	86	1,810	0
Value adjustments from macro fair value hedge accounting	37	n.a.	n.a.	n.a.	n.a.	-37
Derivatives designated for hedge accounting	4,554	0	4,554	0	4,554	0
Total	512,459	383,449	130,349	130	513,928	1,469

Fair value of financial instruments by valuation method as of 31 December 2020

	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						
Financial assets at amortised cost						
Loans and advances to banks	295,460	0	7,654	298,567	306,221	10,760
Loans and advances to customers	129,375	0	680	134,465	135,145	5,770
Securities and investments	35,779	27,955	2,135	5,737	35,827	48
Financial assets at fair value						
Loans and advances to banks – FVM	38	0	0	38	38	0
Loans and advances to customers – FVM	9,616	0	9,425	191	9,616	0
Securities and investments – FVM	3,064	39	2,315	710	3,064	0
Other derivatives – FVM	5,359	0	4,182	1,177	5,359	0
Value adjustments from macro fair value hedge accounting	12,220	n.a.	n.a.	n.a.	n.a.	-12,220
Derivatives designated for hedge accounting	7,958	0	7,958	0	7,958	0
Non-current assets held for sale	81	0	23	59	81	0
Total	498,951	27,995	34,372	440,943	503,309	4,358
Liabilities and equity						
Financial liabilities at amortised cost						
Liabilities to banks	22,304	0	22,359	1	22,361	57
Liabilities to customers	47,219	0	47,289	35	47,323	104
Certificated liabilities	414,344	366,706	49,616	0	416,322	1,978
Financial liabilities at fair value						
Liabilities to banks – FVD	266	0	266	0	266	0
Liabilities to customers – FVD	1,300	0	1,300	0	1,300	0
Certificated liabilities – FVD	10,924	7,690	3,231	3	10,924	0
Other derivatives – FVM	3,741	0	3,722	18	3,741	0
Value adjustments from macro fair value hedge accounting	57	n.a.	n.a.	n.a.	n.a.	-57
Derivatives designated for hedge accounting	9,910	0	9,910	0	9,910	0
Total	510,065	374,396	137,694	57	512,147	2,083

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 of valuation method used for financial instruments measured at fair value with a transfer between levels 1 and 2 in financial year 2021

	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	0
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Non-current assets held for sale	0	0
Total	0	0
Liabilities and equity		
Financial liabilities at fair value		
Liabilities to banks – FVD	0	0
Liabilities to customers – FVD	0	0
Certificated liabilities – FVD	38	0
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Total	38	0

Certificated liabilities in the amount of EUR 38 million (2020: EUR 229 million) were transferred to level 2 due to declining market liquidity.

Change of valuation method used for financial instruments measured at fair value with a transfer between levels 1 and 2 in financial year 2020

	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	352	0
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Non-current assets held for sale	0	0
Total	352	0
Liabilities and equity		
Financial liabilities at fair value		
Liabilities to banks – FVD	0	0
Liabilities to customers – FVD	0	0
Certificated liabilities – FVD	229	9
Other derivatives – FVM	0	0
Derivatives designated for hedge accounting	0	0
Total	229	9

Development of financial assets measured at fair value assigned to level 3 in financial year 2021

	Financial assets at fair value				Non-current assets held for sale	Total
	Loans and advances to banks - FVM	Loans and advances to customers - FVM	Securities and investments - FVM	Other derivatives - FVM		
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
As of 1 Jan. 2021	38	191	710	1,177	59	2,174
A. Changes recognised in the income statement						
Net interest and commission income	0	-1	0	10	0	9
<i>Contracts still valid at year-end</i>	0	-1	0	10	0	9
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	8	-5	53	-648	11	-581
<i>Contracts still valid at year-end</i>	8	-8	39	-573	11	-523
Total changes recognised in the income statement	8	-6	53	-639	11	-573
B. Changes recognised directly in equity						
Change of valuation method used	0	0	-149	0	-27	-177
Transfer from level 1 and level 2	0	0	64	0	8	72
Transfer to level 1 and level 2	0	0	-213	0	-36	-249
Additions	9	49	55	0	0	113
Disposals	-8	-104	-60	0	-7	-179
Total changes recognised directly in equity	0	-55	-155	0	-35	-243
Changes in consolidated group	0	0	0	0	0	0
Exchange rate changes	3	5	24	45	3	80
Other changes	0	0	-14	33	14	33
As of 31 Dec. 2021	49	135	619	616	51	1,471

Development of financial liabilities measured at fair value assigned to level 3 in financial year 2021

	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. 2021	0	0	3	18	21
A. Changes recognised in the income statement					
Net interest and commission income	0	0	0	-1	-1
<i>Contracts still valid at year-end</i>	0	0	0	-4	-4
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	36	36
<i>Contracts still valid at year-end</i>	0	0	0	6	6
Total changes recognised in the income statement	0	0	0	35	35
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
Change of valuation method used	0	0	-4	0	-4
Transfer from level 1 and level 2	0	0	0	0	0
Transfer to level 1 and level 2	0	0	-4	0	-4
Additions	0	0	0	2	2
Disposals	0	0	0	-3	-3
Total changes recognised directly in equity	0	0	-3	-1	-4
Exchange rate changes	0	0	0	1	1
Other changes	0	0	0	33	33
As of 31 Dec. 2021	0	0	0	86	86

Development of financial assets measured at fair value assigned to level 3 in financial year 2020

	Financial assets at fair value					Non-current assets held for sale	Total
	Loans and advances to banks - FVM	Loans and advances to customers - FVM	Securities and investments - FVM	Other derivatives - FVM			
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	
As of 1 Jan. 2020	9	185	842	837	0	1,874	
A. Changes recognised in the income statement							
Net interest and commission income	0	-3	0	20	0	18	
<i>Contracts still valid at year-end</i>	0	-3	0	21	0	18	
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	3	-3	-162	360	12	210	
<i>Contracts still valid at year-end</i>	3	-3	-138	366	2	229	
Total changes recognised in the income statement	3	-5	-162	380	12	228	
B. Changes recognised directly in equity							
Change of valuation method used	0	0	179	0	-24	155	
Transfer from level 1 and level 2	0	0	200	0	0	200	
Transfer to level 1 and level 2	0	0	-21	0	-24	-45	
Additions	30	74	9	0	0	113	
Disposals	-4	-58	-36	0	-14	-112	
Total changes recognised directly in equity	27	16	151	0	-38	156	
Changes in consolidated group	0	0	0	0	0	0	
Exchange rate changes	-1	-5	-35	-62	-2	-105	
Other changes	0	0	-87	21	87	21	
As of 31 Dec. 2020	38	191	710	1,177	59	2,174	

Development of financial liabilities measured at fair value assigned to level 3 in financial year 2020

	Financial liabilities at fair value				Total EUR in millions
	Liabilities to banks - FVD EUR in millions	Liabilities to customers - FVD EUR in millions	Certificated liabilities - FVD EUR in millions	Other derivatives - FVM EUR in millions	
As of 1 Jan. 2020	0	0	16	49	66
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	3	-34	-31
<i>Contracts still valid at year-end</i>	0	0	0	-40	-39
Total changes recognised in the income statement	0	0	3	-34	-31
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
Change of valuation method used	0	0	-16	-17	-33
Transfer from level 1 and level 2	0	0	0	0	0
Transfer to level 1 and level 2	0	0	-16	-17	-33
Additions	0	0	0	-3	-3
Disposals	0	0	0	2	2
Total changes recognised directly in equity	0	0	-16	-18	-34
Exchange rate changes	0	0	0	0	0
Other changes	0	0	0	21	21
As of 31 Dec. 2020	0	0	3	18	21

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 2021

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 ¹⁾	Credit spread	–600 to +2,600 basis points
		Internal spread	–11 to +11 basis points
		Risk costs	+/- 10%
Securities and investments from equity finance business – FVM	Discounted cash flow method ²⁾	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)
		Expected risk-free customer margin	7% to 13%
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 risk-free customer margin	7% to 13%

¹⁾ If the credit spread and the internal spread could not be used for valuation purposes, the sensitivities were calculated on the basis of the cost of risk.

²⁾ 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 2020

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 ¹⁾	Credit spread	–800 to +5,200 basis points
		Internal spread	–8 to +43 basis points
		Risk costs	+/- 10%
Securities and investments from equity finance business – FVM	Discounted cash flow method ²⁾	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)
		Risk costs	+/- 10%
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 risk-free customer margin	7% to 13%
Certificated liabilities – FVD	Option pricing model	Correlations	+/- 500 basis points

¹⁾ If the credit spread and the internal spread could not be used for valuation purposes, the sensitivities were calculated on the basis of the cost of risk.

²⁾ 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 2021

	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	52	49	47
Loans and advances to customers – FVM	146	135	123
Securities and investments – FVM	704	619	548
Other derivatives – FVM	622	616	610
Non-current assets held for sale	61	51	44
Total	1,585	1,471	1,372

Sensitivity analysis for the financial liabilities measured at fair value assigned to level 3 as of 31 December 2021

	Best case scenario	Reported value	Worst case scenario
	EUR in millions	EUR in millions	EUR in millions
Financial liabilities at fair value			
Certificated liabilities – FVD	0	0	0
Other derivatives – FVM	86	86	87
Total	86	86	87

Sensitivity analysis for the financial assets measured at fair value assigned to level 3 as of 31 December 2020

	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	39	38	37
Loans and advances to customers – FVM	209	191	167
Securities and investments – FVM	795	710	637
Other derivatives – FVM	1,184	1,177	1,169
Non-current assets held for sale	74	59	47
Total	2,302	2,174	2,057

Sensitivity analysis for the financial liabilities measured at fair value assigned to level 3 as of 31 December 2020

	Best case scenario	Reported value	Worst case scenario
	EUR in millions	EUR in millions	EUR in millions
Financial liabilities at fair value			
Certificated liabilities – FVD	3	3	3
Other derivatives – FVM	18	18	18
Total	21	21	22

(56) Disclosures on micro fair value hedge accounting**Disclosures on hedged items in micro fair value hedge accounting by risk type – 2021**

	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	28,636	94	1	Financial assets at amortised cost	-508
Interest-currency risk					
Securities and investments – Bonds and other fixed-income securities	116	1	0	Financial assets at amortised cost	-3
Liabilities and equity					
Interest risk					
Liabilities to banks/customers – promissory note loans	30,537	18	2	Financial liabilities at amortised cost	481
Certificated liabilities	183,746	1,799	261	Financial liabilities at amortised cost	5,053
Interest-currency risk					
Liabilities to banks/customers – promissory note loans	0	0	0	Financial liabilities at amortised cost	0
Certificated liabilities	120,051	939	1,309	Financial liabilities at amortised cost	3,576

Disclosures on hedged items in micro fair value hedge accounting by risk type – 2020

	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	28,007	601	0	Financial assets at amortised cost	177
Interest-currency risk					
Securities and investments – Bonds and other fixed-income securities	194	4	0	Financial assets at amortised cost	2
Liabilities and equity					
Interest risk					
Liabilities to banks/customers – promissory note loans	30,717	500	3	Financial liabilities at amortised cost	-88
Certificated liabilities	180,822	6,966	271	Financial liabilities at amortised cost	-2,415
Interest-currency risk					
Liabilities to banks/customers – promissory note loans	0	0	0	Financial liabilities at amortised cost	0
Certificated liabilities	104,712	5,594	-1	Financial liabilities at amortised cost	-1,997

Disclosures on hedging instruments in micro fair value hedge accounting by risk type – 2021

	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	183,537	2,961	Derivatives designated for hedge accounting	512	0.1
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	134,963	5,488	Derivatives designated for hedge accounting	3	0.2 ²⁾
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	54,655	790	Derivatives designated for hedge accounting	-5,524	0.7
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	54,166	1,390	Derivatives designated for hedge accounting	-3,594	0.3 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 – 2020

	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	191,649	5,350	Derivatives designated for hedge accounting	-173	0.9
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	97,459	2,584	Derivatives designated for hedge accounting	-2	2.2 ²⁾
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	27,990	156	Derivatives designated for hedge accounting	2,471	0.6
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	76,933	5,594	Derivatives designated for hedge accounting	1,998	2.1 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 2021

Due	In up to one 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	177	3,075	31,063	88,042	61,180
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	5,336	11,898	22,248	81,928	13,553
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	576	765	3,323	25,216	24,774
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	730	5,464	6,760	34,848	6,365

Analysis of par values of hedging instruments by hedge relationship according to remaining terms as of 31 December 2020

Due	In up to one 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	1,849	11,251	114,200	64,349
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	0	5,533	16,336	63,407	12,183
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	556	880	2,818	17,668	6,067
Interest-currency risk					
Currency-related transactions: cross-currency interest rate swap	1,020	9,292	11,120	48,232	7,269

(57) Disclosures on macro fair value hedge accounting

Disclosures on hedged items in macro fair value hedge accounting by risk type – 2021

	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 adjust- ment from macro fair value hedge accounting	Value adjust- ment from macro fair value hedge accounting	
				EUR in millions	EUR in millions	
Interest risk						
Assets				Financial assets at amortised cost	Value adjustment from macro fair value hedge accounting	
	222,782	4,609	195			-7,430
Liabilities and equity				Financial liabilities at amortised cost	Value adjustment from macro fair value hedge accounting	
	0	37	37			18

Disclosures on hedged items in macro fair value hedge accounting by risk type – 2020

	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	
Interest risk						
Assets					Value adjustments from macro fair value hedge accounting	
	214,054	12,220	382	Financial assets at amortised cost		1,779
Liabilities and equity					Value adjustments from macro fair value hedge accounting	
	0	57	57	Financial liabilities at amortised cost		18

Disclosures on hedging instruments in macro fair value hedge accounting by risk type – 2021

	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)
Assets				
Interest risk				
Interest-related transactions: interest rate swap			Derivatives designated for hedge accounting	
	77,829	29		2,003
Liabilities and equity				
Interest risk				
Interest-related transactions: interest rate swap			Derivatives designated for hedge accounting	
	151,426	2,373		5,304

Disclosures on hedging instruments in macro fair value hedge accounting by risk type – 2020

	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	7,970	24	Derivatives designated for hedge accounting	-178
Liabilities and equity				
Interest risk				
Interest-related transactions: interest rate swap	205,883	4,160	Derivatives designated for hedge accounting	-1,578

Analysis of par values of hedging instruments by remaining terms as of 31 December 2021

Due	In up to one 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	0	1,838	17,610	58,381
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	6,782	4,100	16,406	81,116	43,022

Analysis of par values of hedging instruments by remaining terms as of 31 December 2020

Due	In up to one 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	400	0	4,550	2,039	982
Liabilities and equity					
Interest risk					
Interest-related transactions: interest rate swap	721	1,621	14,547	99,339	89,655

(58) Additional disclosures on derivatives

Analysis of derivatives by type of hedge

	Par value		Fair value 31 Dec. 2021		Fair value 31 Dec. 2020	
	31 Dec. 2021	31 Dec. 2020	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	584,335	540,913	6,111	4,040	10,126	5,584
Cross-currency derivatives	165,569	156,986	7,727	2,311	3,180	8,047
Credit derivatives	0	0	0	0	0	0
Total	749,904	697,898	13,838	6,351	13,306	13,631

Cross-currency swaps are presented under Cross-currency derivatives.

Analysis of derivatives by counterparty

	Par value		Fair value 31 Dec. 2021		Fair value 31 Dec. 2020	
	31 Dec. 2021	31 Dec. 2020	positive	negative	positive	negative
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OECD banks	737,960	685,952	13,222	6,261	12,125	13,580
Non-OECD banks	161	165	0	3	4	6
Other counterparties	11,676	10,824	598	85	1,149	18
Public sector	107	957	18	2	27	27
Total	749,904	697,898	13,838	6,351	13,306	13,631

The analysis includes financial and credit derivatives which are presented in the items Derivatives designated for hedge accounting and Other derivatives. Embedded derivatives that must be bifurcated are not included.

The economic hedge effect of financial derivatives with an aggregate principal amount of EUR 669.2 billion (31 Dec. 2020: EUR 627.3 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 2020, 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 829 million (31 Dec. 2020: EUR 4,909 million) was provided, which is recognised under Financial assets at amortised cost – Loans and advances to banks or customers.

Unchanged from 31 December 2020, 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 7,717 million (31 Dec. 2020: EUR 3,446 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

	2021	2020
	EUR in millions	EUR in millions
As of 1 Jan.	-101	-104
Addition	-20	-13
Reversal	18	11
Exchange rate changes	-5	5
As of 31 Dec.	-108	-101

The net gains/losses from financial derivatives not qualifying for hedge accounting includes amortisation effects in the amount of EUR 10 million (2020: EUR 9 million).

(59) Management of the transition to new reference rates

With respect to the transition to new alternative risk-free reference rates, KfW is relying on a group-wide project structure that was set up at an early stage and covers the main areas of focus. In addition to defining a transition strategy in line with supervisory requirements, the procedural and IT conditions have been established to widely satisfy the complex requirements of a transition of derivatives and spot transactions. These comprehensive adjustment measures result from the complex requirements relating to valuation models, risk management and accounting.

A large share of the derivatives referencing GBP, CHF and JPY LIBOR were actively converted in the second half of 2021 as planned. Derivative instruments indexed to the above reference rates, which had not been actively migrated by the end of 2021, are being passively transitioned into the new interest-rate environment via the ISDA fallback protocol. However, ISDA fallbacks will only be applied if active conversion is not possible.

Conversion of loans to alternative reference rates has already been tested in an operational environment and will be continued in 2022. This applies to transitioning to rates compounded overnight in arrears as well as to forward-looking term rates.

Key assumptions relating to benchmark reform

- KfW assumes that EURIBOR-based reference rates will be admissible for the foreseeable future.
A transition is therefore not necessary for these instruments in the medium term.
- The main reference rates affected by the transition that are relevant for KfW's financial instruments are:
 - USD LIBOR: transition to SOFR
 - GBP LIBOR: transition to SONIA
 - CHF LIBOR: transition to SARON
 - JPY LIBOR: transition to TONA

For the USD LIBOR and GBP LIBOR reference rates, derivatives were also designated for hedge accounting effective 31 December 2021.

The following holdings are affected by the benchmark reform:

Risk exposure/carrying amounts and nominal amounts

	Non-derivative financial assets	Non-derivative financial liabilities	Derivative financial instruments designated for hedge accounting	Derivative financial instruments not designated for hedge accounting
	Carrying amount	Carrying amount	Nominal volumes (gross)	Nominal volumes (gross)
Reference rate (floating leg)	31 Dec. 2021	31 Dec. 2021	31 Dec. 2021	31 Dec. 2021
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
USD LIBOR	15,214	0	152,548	7,534
GBP LIBOR	2,316	0	1,837	2,009
CHF LIBOR	0	0	96	0
JPY LIBOR	39	31	0	31
EUR LIBOR	29	0	0	0

(60) Additional disclosures on financial liabilities at fair value

Disclosures on financial liabilities at fair value as of 31 December 2021

	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	255	1,003	8,416	9,674
Repayment amount at maturity	245	1,187	9,330	10,762
Difference	-10	184	915	1,088
thereof borrowings for which the repayment amount builds up as a result of the capitalisation over time of interest due	0	185	1,735	1,919

Disclosures on financial liabilities at fair value as of 31 December 2020

	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	266	1,300	10,924	12,490
Repayment amount at maturity	245	1,584	11,359	13,188
Difference	-21	284	434	698
thereof borrowings for which the repayment amount builds up as a result of the capitalisation over time of interest due	0	287	1,608	1,895

(61) Contractual payment obligations arising from financial instruments

Analysis of payment obligations by maturity range as of 31 December 2021¹⁾

	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	9,614	1,332	40	1,876	709	13,572
Liabilities to customers	3,434	2,706	15,442	13,496	8,739	43,817
Certificated liabilities	17,813	33,326	69,178	215,374	109,035	444,726
Financial liabilities at fair value						
Liabilities to banks	0	0	1	5	249	255
Liabilities to customers	0	3	6	121	1,209	1,339
Certificated liabilities	38	8	203	1,122	10,054	11,425
Net obligations arising from derivative financial instruments	-621	-817	-2,819	-7,099	-5,979	-17,335
<i>thereof Gross obligations arising from derivative financial instruments</i>	11,116	26,219	34,170	75,345	21,312	168,163
Obligations arising from on-balance sheet financial instruments	30,278	36,558	82,051	224,896	124,015	497,798
Obligations arising from off-balance sheet transactions	116,290	0	0	0	0	116,290
Total	146,568	36,558	82,051	224,896	124,015	614,088

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 2020¹⁾

	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	4,854	2,498	135	13,156	1,467	22,110
Liabilities to customers	2,037	2,837	5,989	27,374	8,394	46,632
Certificated liabilities	26,755	30,277	49,606	214,226	92,694	413,557
Financial liabilities at fair value						
Liabilities to banks	0	0	1	5	250	256
Liabilities to customers	149	3	6	83	1,505	1,746
Certificated liabilities	14	6	2,604	973	10,112	13,709
Net obligations arising from derivative financial instruments	275	590	-571	-1,300	-5,333	-6,338
<i>thereof Gross obligations arising from derivative financial instruments</i>	14,541	25,387	31,084	78,092	22,360	171,465
Obligations arising from on-balance sheet financial instruments	34,084	36,211	57,771	254,516	109,090	491,672
Obligations arising from off-balance sheet transactions	108,535	0	0	0	0	108,535
Total	142,618	36,211	57,771	254,516	109,090	600,207

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. 2021	31 Dec. 2020
	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	2,086	13,913
Financial liabilities at amortised cost – Liabilities to banks (countervalue)	2,052	13,324

The fair value of interest-bearing securities sold under repo transactions that continue to be recognised in Securities and investments totalled EUR 2,088 million (31 Dec. 2020: EUR 13,905 million). The fair value of the corresponding repayment obligations was EUR 2,052 million (31 Dec. 2020: EUR 13,324 million).

Moreover, as in 2020, 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 2020, 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 2020, the group neither pledged nor accepted any liquid collateral.

Disclosures on reverse repo transactions

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Financial assets at amortised cost – Loans and advances to banks (countervalue)	0	50
Financial assets at amortised cost – Loans and advances to customers (countervalue)	0	0
Total	0	50

The fair value of interest-bearing securities purchased under reverse repos that are not recognised amounted to EUR 0 million (31 Dec. 2020: EUR 54 million).

Moreover, as in 2020, 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.

As in 2020, 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 2020, the group neither pledged nor accepted any liquid collateral.

(63) Disclosure on offsetting 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.

For securities repo transactions (reverse repos and repos) for which EUREX acts as the central counterparty, offsetting is performed for receivables and liabilities provided that relevant IFRS requirements are met.

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 extinction 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 provides for the latter case, 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.

KfW's framework agreements relating to bilateral OTC derivatives (not in central clearing) all 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.

Disclosures on financial assets with netting agreements as of 31 December 2021

	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	19,127	5,899 ¹⁾	13,228	5,417	7,644	168
Reverse repos	0	0	0	0	0	0
Total	19,127	5,899	13,228	5,417	7,644	168

¹⁾ Thereof obligations from cash collateral for OTC derivatives with EUREX as the central counterparty in the amount of EUR 282 million.

Disclosures on financial liabilities with netting agreements as of 31 December 2021

	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	11,932	5,617	6,315	5,417	790	108
Repos	698	0	698	0	698	0
Total	12,630	5,617	7,013	5,417	1,488	108

The disclosures on financial instruments with netting agreements only include gross and net amounts for financial assets and financial liabilities with netting agreements. As of 31 December 2021, the Notes on the two classes Derivatives designated for hedge accounting and Other derivatives also include financial assets with a carrying amount of EUR 631 million (31 Dec. 2020: EUR 1,180 million) and financial liabilities with a carrying amount of EUR 49 million (31 Dec. 2020: EUR 53 million), in particular from bifurcated embedded derivatives and derivatives not subject to netting agreements.

The Note "Disclosures on repurchase agreements" also includes financial liabilities with a carrying amount of EUR 1,354 million (31 Dec. 2020: EUR 13,290 million) from funding via TLTRO III that is 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 2020

	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	21,008	8,871	12,137	8,500	3,417	220
Reverse repos	50	0	50	9	41	0
Total	21,058	8,871	12,187	8,509	3,458	220

Disclosures on financial liabilities with netting agreements as of 31 December 2020

	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	23,768	10,170 ¹⁾	13,598	8,500	4,822	276
Repos	34	0	34	9	26	0
Total	23,802	10,170	13,632	8,509	4,848	276

¹⁾ Thereof receivables from cash collateral for OTC derivatives with EUREX as the central counterparty in the amount of EUR 1,299 million.

Other notes

(64) Off-balance sheet transactions

Analysis by class

	31 Dec. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Irrevocable loan commitments	111,640	105,282
Financial guarantee contracts	1,737	1,347
Contingent liabilities from financial guarantees	1,441	1,474
Other contingent liabilities	2,065	1,843
Total	116,883	109,945

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. 2021	31 Dec. 2020
	EUR in millions	EUR in millions
Loans and advances to banks	761	797
Loans and advances to customers	10,239	10,442
Securities and investments	8,056	6,576 ¹⁾
Assets held in trust	19,056	17,815
Liabilities to banks	0	0
Liabilities to customers	19,056	17,815 ¹⁾
Liabilities held in trust	19,056	17,815

¹⁾ The comparative figure was adjusted by EUR 332 million (see Note 3).

EUR 13,337 million (31 Dec. 2020: EUR 12,551 million) of the assets held in trust is attributable to the business sector Promotion of developing countries and emerging economies. Additional transactions with the Federal Government as trustor in the amount of EUR 4,302 million (31 Dec. 2020: EUR 3,852 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 80 million (31 Dec. 2020: EUR 30 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. 2021 EUR in millions	31 Dec. 2020 EUR in millions
Administered loans	20,189	18,383

(66) Leasing transactions as lessee

Disclosures on lessee agreements as of 31 December 2021

	Due within one year EUR in millions	Due in between one and five years EUR in millions	Due in more than five years EUR in millions	Total EUR in millions
Lease liabilities (undiscounted)	13	33	13	59

Disclosures on lessee agreements as of 31 December 2020

	Due within one year EUR in millions	Due in between one and five years EUR in millions	Due in more than five years EUR in millions	Total EUR in millions
Lease liabilities (undiscounted)	13	42	17	73

(67) Average number of employees during the financial year

	2021	2020
Female employees	3,740	3,578
Male employees	3,994	3,804
Total	7,734	7,382
Staff not covered by collective agreements	5,047	4,795
Staff covered by collective agreements	2,276	2,146
Staff in external offices	411	442

(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 Directors¹⁾

	2021 EUR in thousands	2020 EUR in thousands
Members of the Executive Board	3,651.0 ²⁾	3,693.1 ³⁾
Former members of the Executive Board and their surviving dependants	4,474.5	4,540.1
Members of the Board of Supervisory Directors	197.4	204.1
Total	8,322.9	8,437.3

¹⁾ Amounts in the table are subject to rounding differences.

²⁾ The following changes were made in the composition of the Executive Board in the reporting year:

- Dr Günther Bräunig stepped down from the Executive Board of KfW as of 31 October 2021.
- Stefan Wintels was appointed to the Executive Board of KfW with effect from 1 October 2021.
- Christiane Laibach was appointed to the Executive Board of KfW with effect from 1 June 2021.

³⁾ Prof. Dr Joachim Nagel stepped down from the Executive Board of KfW as of 31 October 2020.

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 2021 and 2020¹⁾

	Salary		Other remuneration		Total		Additions to pension provisions ²⁾	
	2021	2020	2021	2020	2021	2020	2021	2020
	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
Dr Günther Bräunig (Chief Executive Officer) ³⁾	665.3	785.3	22.3	28.3	687.6	813.6	1,311.7	291.5
Stefan Wintels (Chief Executive Officer) ⁴⁾	199.6	/	3.4	/	203.0	/	259.0	/
Dr Ingrid Hengster	574.3	564.9	39.5	37.8	613.8	602.7	305.2	774.8
Melanie Kehr	541.0	532.2	14.4	28.6	555.4	560.8	297.5	530.9
Christiane Laibach ⁵⁾	315.6	/	19.9	/	335.5	/	204.2	/
Bernd Loewen	640.0	629.5	25.7	36.1	665.7	665.6	-123.0	854.4
Prof. Dr Joachim Nagel ⁶⁾	/	451.8	/	15.5	/	467.3	/	-1,314.0 ⁷⁾
Dr Stefan Peiß	574.3	564.9	15.7	18.2	590.0	583.1	-133.3	729.5
Total	3,510.1	3,528.6	140.9	164.5	3,651.0	3,693.1	2,121.3	1,867.1

¹⁾ Amounts in the table are subject to rounding differences.

²⁾ The discount rate for pension obligations increased in 2021 due to the rise in long-term capital market rates, from 1.02% (31 December 2020) to 1.32% (31 December 2021).

³⁾ Dr Günther Bräunig stepped down from the Executive Board of KfW as of 31 October 2021.

⁴⁾ Stefan Wintels was appointed to the Executive Board of KfW with effect from 1 October 2021. Stefan Wintels served as Co-CEO with Dr Günther Bräunig from 1 October until 31 October 2021. Stefan Wintels has served as the sole CEO since 1 November 2021.

⁵⁾ Christiane Laibach was appointed to the Executive Board of KfW with effect from 1 June 2021.

⁶⁾ Prof. Dr Joachim Nagel stepped down from the Executive Board of KfW as of 31 October 2020.

⁷⁾ Plus/minus sign adjustment.

Breakdown of other remuneration of the Executive Board in financial year 2021¹⁾

	Company car	Group accident insurance	Health insurance	Long-term care insurance	Cost of maintaining a second home	Total
	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
Dr Günther Bräunig (Chief Executive Officer) ²⁾	14.9	0.5	6.2	0.7	0.0	22.3
Stefan Wintels (Chief Executive Officer) ³⁾	1.9	0.1	1.2	0.2	0.0	3.4
Dr Ingrid Hengster	26.3	0.4	12.0	0.8	0.0	39.5
Melanie Kehr	9.3	0.4	4.2	0.5	0.0	14.4
Christiane Laibach ⁴⁾	6.9	0.2	2.6	0.2	10.0	19.9
Bernd Loewen	11.4	0.5	13.0	0.8	0.0	25.7
Dr Stefan Peiß	7.6	0.4	6.8	0.9	0.0	15.7
Total	78.3	2.5	46.0	4.1	10.0	140.9

¹⁾ Amounts in the table are subject to rounding differences.

²⁾ Dr Günther Bräunig stepped down from the Executive Board of KfW as of 31 October 2021.

³⁾ Stefan Wintels was appointed to the Executive Board of KfW with effect from 1 October 2021. Stefan Wintels served as Co-CEO with Dr Günther Bräunig from 1 October until 31 October 2021. Stefan Wintels has served as the sole CEO since 1 November 2021.

⁴⁾ Christiane Laibach was appointed to the Executive Board of KfW with effect from 1 June 2021.

Breakdown of other remuneration of the Executive Board in financial year 2020¹⁾

	Company car	Group accident insurance	Health insurance	Long-term care insurance	Cost of maintaining a second home	Total
	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
Dr Günther Bräunig (Chief Executive Officer)	19.6	0.6	7.3	0.9	0.0	28.3
Dr Ingrid Hengster	24.4	1.5	11.1	0.8	0.0	37.8
Melanie Kehr	11.0	0.4	3.8	0.1	13.3	28.6
Bernd Loewen	22.0	1.5	11.9	0.8	0.0	36.1
Prof. Dr Joachim Nagel ²⁾	12.7	0.0	2.6	0.2	0.0	15.5
Dr Stefan Peiß	10.3	0.4	6.6	0.9	0.0	18.2
Total	100.0	4.4	43.3	3.7	13.3	164.5

¹⁾ Amounts in the table are subject to rounding differences.

²⁾ Prof. Dr Joachim Nagel stepped down from the Executive Board of KfW as of 31 October 2020.

Breakdown of remuneration of the Executive Board from secondary employment in financial years 2021 and 2020

	2021 EUR in thousands	2020 EUR in thousands
Dr Günther Bräunig (Chief Executive Officer) ¹⁾	306.6	423.8
Stefan Wintels (Chief Executive Officer) ²⁾	0.0	/
Dr Ingrid Hengster	21.5	83.3
Melanie Kehr	30.6	0.0
Christiane Laibach ³⁾	0.0	/
Bernd Loewen	40.0	37.0
Dr Stefan Peiß	0.0	0.0

¹⁾ Dr Günther Bräunig stepped down from the Executive Board of KfW as of 31 October 2021.

²⁾ Stefan Wintels was appointed to the Executive Board of KfW with effect from 1 October 2021. Stefan Wintels served as Co-CEO with Dr Günther Bräunig from 1 October until 31 October 2021. Stefan Wintels has served as the sole CEO since 1 November 2021.

³⁾ Christiane Laibach was appointed to the Executive Board of KfW with effect from 1 June 2021.

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 16 December 2021.

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. 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 compensation 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 2021 and 2020:

Pension payments to former Executive Board members or their surviving dependants

	2021		2020	
	Headcount	EUR in thousands	Headcount	EUR in thousands
Former members of the Executive Board	19	3,673.3	18	3,549.4
Surviving dependants	8	801.2	8	990.7
Total	27	4,474.5	26	4,540.1

Provisions for pension obligations to former members of the Executive Board and their surviving dependants in the amount of EUR 74,578 thousand (31 Dec. 2020: EUR 69,287 thousand) were set up at the end of financial year 2021.

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 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 2021; 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 2021¹⁾

No.	Name	Dates of membership	Board of Supervisory Directors membership ²⁾	Committee membership ²⁾	Daily allowance ⁴⁾	Total
			EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
		2021				
1.	Olaf Scholz	1 Jan. – 8 Dec.	0.0	0.0	0.0	0.0
2.	Christian Lindner	8 Dec. – 31 Dec.	0.0	0.0	0.0	0.0
3.	Peter Altmaier	1 Jan. – 8 Dec.	0.0	0.0	0.0	0.0
4.	Dr Robert Habeck	8 Dec. – 31 Dec.	0.0	0.0	0.0	0.0
5.	Doris Ahnen ³⁾	1 Jan. – 31 Dec.	5.1	0.6	0.2	5.9
6.	Annalena Baerbock	8 Dec. – 31 Dec.	0.0	0.0	0.0	0.0
7.	Sören Bartol	1 Jan. – 13 Dec.	5.1	1.8	0.8	7.8
8.	Dr Danyal Bayaz	8 Oct. – 31 Dec.	1.3	0.0	0.0	1.3
9.	Dr André Berghegger	1 Jan. – 31 Dec.	5.1	1.8	0.8	7.8
10.	Dr Holger Bingmann ⁵⁾	1 Jan. – 31 Dec.	5.1	0.6	1.4	7.1
11.	Volker Bouffier ³⁾	1 Jan. – 31 Dec.	5.1	1.2	0.4	6.7
12.	Ingeborg Esser ⁵⁾	1 Jan. – 31 Dec.	5.1	0.0	0.8	5.9
13.	Robert Feiger	6 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
14.	Albert Füracker ³⁾	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
15.	Verena Göppert	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
16.	Olav Gutting	1 Jan. – 31 Dec.	5.1	0.6	0.8	6.5
17.	Dr Louis Hagen	1 Jan. – 31 Dec.	5.1	1.2	1.4	7.7
18.	Reinhold Hilbers ³⁾	1 Jan. – 31 Dec.	5.1	1.8	1.0	8.0
19.	Reiner Hoffmann	6 Jan. – 31 Dec.	5.1	1.0	0.4	6.5
20.	Gerhard Hofmann	1 Jan. – 31 Dec.	5.1	1.2	1.2	7.5
21.	Dr Bruno Hollnagel	1 Jan. – 31 Dec.	5.1	0.0	0.6	5.7
22.	Johannes Kahrs	1 Jan. – 19 Nov.	4.7	1.1	0.0	5.8
23.	Alois Karl ⁵⁾	1 Jan. – 31 Dec.	5.1	0.6	1.4	7.1
24.	Julia Klöckner	1 Jan. – 8 Dec.	0.0	0.0	0.0	0.0
25.	Andrea Kocsis ⁵⁾	1 Jan. – 31 Dec.	5.1	0.0	0.6	5.7
26.	Stefan Körzell	6 Jan. – 31 Dec.	5.1	1.0	0.6	6.7
27.	Dr Joachim Lang	6 Jan. – 31 Dec.	5.1	1.0	0.2	6.3
28.	Steffi Lemke	8 Dec. – 31 Dec.	0.0	0.0	0.0	0.0
29.	Heiko Maas	1 Jan. – 8 Dec.	0.0	0.0	0.0	0.0
30.	Dr Gerd Müller	1 Jan. – 8 Dec.	0.0	0.0	0.0	0.0
31.	Rainer Neske	6 Jan. – 31 Dec.	5.1	0.6	1.2	6.9
32.	Cem Özdemir	8 Dec. – 31 Dec.	0.0	0.0	0.0	0.0
33.	Dr Hans-Walter Peters	6 Jan. – 31 Dec.	5.1	2.2	1.2	8.5
34.	Joachim Rukwied ⁵⁾	1 Jan. – 31 Dec.	5.1	0.6	0.6	6.3
35.	Andreas Scheuer	1 Jan. – 8 Dec.	0.0	0.0	0.0	0.0
36.	Helmut Schلهweis	6 Jan. – 31 Dec.	5.1	2.2	0.0	7.3
37.	Svenja Schulze (until 8 Dec. BMU; from 8 Dec. BMZ)	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
38.	Holger Schwannecke	1 Jan. – 31 Dec.	5.1	1.8	0.4	7.4
39.	Edith Sitzmann ³⁾	1 Jan. – 11 May	2.1	0.0	0.0	2.1
40.	Peter Strobel ³⁾	1 Jan. – 31 Dec.	5.1	1.2	1.0	7.3
41.	Heike Taubert ³⁾	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
42.	Michael Theurer ⁵⁾	1 Jan. – 15 Dec.	5.1	1.1	0.2	6.4
43.	Dr Martin Wansleben	1 Jan. – 31 Dec.	5.1	0.6	0.8	6.5
44.	Dr Volker Wissing	8 Dec. – 31 Dec.	0.0	0.0	0.0	0.0
Total			151.3	26.7	19.4	197.4

¹⁾ Amounts in the table are subject to rounding differences.

²⁾ The amounts had not yet been paid out as of the reporting date 31 December 2021.

³⁾ Amount governed by state law.

⁴⁾ Amounts for financial year 2021 until the date of assessment. Any later claims will be included in the next report.

⁵⁾ The daily allowance includes payments for 2020.

Remuneration of members of the Board of Supervisory Directors for financial year 2020¹⁾

No.	Name	Dates of membership	Board of Supervisory Directors membership ²⁾	Committee membership ²⁾	Daily allowance ⁴⁾	Total
			EUR in thousands	EUR in thousands	EUR in thousands	EUR in thousands
		2020				
1.	Peter Altmaier	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
2.	Olaf Scholz	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
3.	Doris Ahnen ³⁾	1 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
4.	Sören Bartol	1 Jan. – 31 Dec.	5.1	1.8	1.4	8.3
5.	Dr André Berghegger	1 Jan. – 31 Dec.	5.1	1.7	0.6	7.4
6.	Dr Holger Bingmann	1 Jan. – 31 Dec.	5.1	0.6	1.0	6.7
7.	Volker Bouffier ³⁾	1 Jan. – 31 Dec.	5.1	1.1	0.6	6.8
8.	Ingeborg Esser	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
9.	Robert Feiger	1 Jan. – 31 Dec.	5.1	0.6	0.6	6.3
10.	Albert Füracker ³⁾	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
11.	Verena Göppert	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
12.	Olav Gutting	1 Jan. – 31 Dec.	5.1	0.6	1.2	6.9
13.	Dr Louis Hagen	1 Jan. – 31 Dec.	5.1	1.1	1.8	8.0
14.	Reinhold Hilbers ³⁾	1 Jan. – 31 Dec.	5.1	1.7	1.4	8.2
15.	Reiner Hoffmann	1 Jan. – 31 Dec.	5.1	1.2	0.6	6.9
16.	Gerhard Hofmann	1 Jan. – 31 Dec.	5.1	1.1	1.8	8.0
17.	Dr Bruno Hollnagel	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
18.	Johannes Kahrs	1 Jan. – 31 Dec.	5.1	1.1	0.4	6.6
19.	Alois Karl	1 Jan. – 31 Dec.	5.1	0.6	1.0	6.7
20.	Julia Klöckner	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
21.	Andrea Kocsis	1 Jan. – 31 Dec.	5.1	0.0	0.0	5.1
22.	Stefan Körzell	1 Jan. – 31 Dec.	5.1	1.2	0.6	6.9
23.	Dr Joachim Lang	1 Jan. – 31 Dec.	5.1	1.2	0.0	6.3
24.	Heiko Maas	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
25.	Dr Gerd Müller	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
26.	Dr Hans-Walter Peters ⁵⁾	1 Jan. – 31 Dec.	5.1	2.5	1.6	9.2
27.	Eckhardt Rehberg ⁶⁾		0.0	0.0	1.4	1.4
28.	Dr Johannes-Jörg Riegler	1 Jan. – 31 Dec.	5.1	0.6	2.0	7.7
29.	Joachim Rukwied	1 Jan. – 31 Dec.	5.1	0.6	0.4	6.1
30.	Andreas Scheuer	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
31.	Helmut Schلهweis	1 Jan. – 31 Dec.	5.1	2.5	0.0	7.6
32.	Svenja Schulze	1 Jan. – 31 Dec.	0.0	0.0	0.0	0.0
33.	Holger Schwannecke	1 Jan. – 31 Dec.	5.1	1.8	0.6	7.5
34.	Edith Sitzmann ³⁾	1 Jan. – 31 Dec.	5.1	0.0	0.4	5.5
35.	Peter Strobel ³⁾	1 Jan. – 31 Dec.	5.1	1.1	1.0	7.2
36.	Heike Taubert ³⁾	1 Jan. – 31 Dec.	5.1	0.0	0.2	5.3
37.	Michael Theurer	1 Jan. – 31 Dec.	3.8	0.9	0.4	5.1
38.	Dr Florian Toncar	1 Jan. – 31 Dec.	1.3	0.3	0.0	1.6
39.	Dr Martin Wansleben	1 Jan. – 31 Dec.	5.1	0.6	1.2	6.9
Total			153.0	27.1	23.8	204.1

¹⁾ Amounts in the table are subject to rounding differences.

²⁾ The amounts had not yet been paid out as of the reporting date 31 December 2020.

³⁾ Amount governed by state law.

⁴⁾ Amounts for financial year 2020 until the date of assessment. Any later claims will be included in the next report.

⁵⁾ The daily allowance includes payments for 2019.

⁶⁾ Payments for meeting attendance from 2016 to 2018.

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. 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 related parties and KfW Group must be disclosed in accordance with IAS 24 requirements. KfW Group's related parties 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. Natural persons in key management positions considered to be related parties in accordance with IAS 24 include the members of the Executive Board, the Directors of KfW and the members of the Board of Supervisory Directors, members of the management boards and, if applicable, of the supervisory boards of all consolidated subsidiaries and their close family members. Transactions with related parties are concluded at arm's length as part of operating activities.

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 2021 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.

As of 31 December 2021, KfW Group reported receivables in the amount of EUR 19.9 billion (31 Dec. 2020: EUR 20.5 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. Securities and investments in the amount of EUR 3.9 billion (31 Dec. 2020: EUR 3.5 billion) includes notes from the liquidity portfolio. Under Other assets, KfW reported mainly claims for reimbursement from the Federal Government in the amount of EUR 643 million (31 Dec. 2020: EUR 641 million); these were offset in the same amount by liabilities relating to agency agreements. Assets are offset by liabilities of EUR 4.5 billion (31 Dec. 2020: EUR 5.4 billion), which include the liabilities from dividend income to be paid to the Federal Government. Interest rate swaps were also contracted with the Federal Government to hedge interest risk positions. In 2020, this resulted in a negative fair value of the hedging instruments of EUR 27 million.

As of 31 December 2021, irrevocable loan commitments of around EUR 12.4 billion (31 Dec. 2020: EUR 12.8 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 118.3 billion as of 31 December 2021 (31 Dec. 2020: EUR 112.5 billion), including for stabilisation measures through extensive liquidity assistance for businesses during

the coronavirus pandemic, for the market funds business of the business sector Promotion of developing countries and emerging economies, for project and real estate financing, and for additional mandated transactions.

Transactions with shareholders resulted in Net interest income of EUR 19 million as of 31 December 2021 (31 Dec. 2020: EUR 32 million). This also included EUR 30 million (31 Dec. 2020: EUR 20 million) reimbursed by the Federal Government for interest not charged to end borrowers of student loans due to the coronavirus pandemic. The Federal Government will continue its reimbursements until 30 September 2022. 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 “Revenue from contracts with customers” (Note 10), “Net commission income” (Note 23) and “Trust activities” (Notes 20 and 65).

Transactions with interests held by the Federal Government

As of 31 December 2021, KfW maintained credit balances at Deutsche Bundesbank in the amount of EUR 42.4 billion (31 Dec. 2020: EUR 44.2 billion). This resulted in negative interest income of EUR 210 million (2020: EUR 145 million). Under liabilities to Deutsche Bundesbank, the group reported repo transactions in the amount of EUR 1.4 billion (31 Dec. 2020: EUR 13.3 billion) in connection with refinancing operations (TLTRO III) (see also Note 14 “Government grants”).

Funding for the KfW Special Programme 2020, with which KfW was mandated by the Federal Government to support the German economy during the COVID-19 crisis, was provided via the Economic Stabilisation Fund (“WSF”). The WSF is administered by the German Finance Agency, which also performs tasks in its own name. KfW reported coronavirus promissory note loans of EUR 35.7 billion (31 Dec. 2020: EUR 38.9 billion) under liabilities in this context. The funding advantages of the coronavirus promissory note loans compared to KfW’s funding spread benefit the Federal Government through the settlement of the coronavirus special programme.

Transactions with the remainder of the interests held by the Federal Government primarily include loans in the amount of EUR 638 million (31 Dec. 2020: EUR 658 million) in connection with corporate financing, securities and investments of EUR 0 million (31 Dec. 2020: EUR 26 million) in the form of notes from the liquidity portfolio and loan commitments and guarantees granted of EUR 0 million (31 Dec. 2020: EUR 29 million). This resulted in net interest income in the amount of EUR 6 million (2020: EUR 6 million).

Transactions with group companies

As of 31 December 2021, transactions with group companies resulted in loans of EUR 0 million (31 Dec. 2020: EUR 1 million). These were offset by other liabilities to tbg of EUR 57 million (31 Dec. 2020: EUR 44 million). Net interest income in the amount of EUR 0 million (2020: EUR 0 million) was reported from transactions with group companies.

Transactions with key persons

The business relationships between KfW and natural persons considered related parties are primarily determined by the KfW Bylaws and by applying the principles of the Federal Public Corporate Governance Code. Under its promotional mandate, KfW primarily disbursed financing grants for charging stations for electric cars and direct loans for education financing of EUR 53 thousand (31 Dec. 2020: EUR 56 thousand). 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.

Please refer to the remuneration report for details on remuneration of the Executive Board and the Board of Supervisory Directors.

(70) Auditor's fees

	2021	2020
	EUR in thousands	EUR in thousands
Audit	6,027	4,462
Other attestation services	1,067	973
Tax advisory services	0	0
Other services	0	0
Total	7,095	5,435

(71) Disclosures on unconsolidated structured entities

KfW 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 2021, the carrying amount of the positions held totalled EUR 5.8 billion (31 Dec. 2020: EUR 6.0 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 KfW 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. KfW 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 KfW Group supports these customers with pre-export financing structures.

As of 31 December 2021, the carrying amount of the positions held totalled EUR 2.4 billion (31 Dec. 2020: EUR 2.9 billion).

Structured entities in the business sector Promotion of developing countries and emerging economies

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 2021, the carrying amount of the positions held totalled EUR 0.2 billion (31 Dec. 2020: 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 2021

	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	2,378	5,846	9	139
Risk and other provisions	46	1	0	0
Max. risk of loss	2,332	5,845	9	139

Maximum risk of loss as of 31 December 2020

	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	2,922	6,009	14	168
Risk and other provisions	117	1	0	1
Max. risk of loss	2,805	6,008	14	167

The maximum risk of loss is equal to the nominal amount for credit lines, (financial) guarantees and other liquidity facilities less the provisions for credit risks recognised in the statement of financial position. The maximum risk of loss relating to KfW Group's investments is their carrying amount (net). The maximum risk of loss does not include effects from KfW Group's hedging instruments used to reduce the maximum risk of loss.

No support is provided to structured entities in KfW Group beyond the respective financing.

In exceptional cases, KfW Group acts as the 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, KfW Group is considered as the sponsor of the structured entities because the entities were initiated and/or structured by KfW 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. 2021	as of 31 Dec. 2020
	%	EUR in millions	EUR in millions
KfW IPEX-Bank GmbH, Frankfurt am Main, Germany	100.0	3,881	3,463
DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne, Germany	100.0	2,987	2,351
KfW Beteiligungsholding GmbH, Bonn, Germany	100.0	3,082	3,177
Interkonnektor GmbH, Frankfurt am Main, Germany	100.0	95	76
KfW Capital GmbH & Co. KG, Frankfurt am Main, Germany	100.0	665	383

Associates included in the consolidated financial statements using the equity method

Name/registered office	Capital share	Equity	Equity
		as of 30 Sept. 2021	as of 30 Sept. 2020
	%	EUR in millions	EUR in millions
Microfinance Enhancement Facility S. A., Luxembourg	16.5	472	431
Green for Growth Fund, Southeast Europe S. A., Luxembourg	10.2	524	480
coparion GmbH & Co. KG, Cologne, Germany	16.4	284	126

Name/registered office	Capital share	Equity	Equity
		as of 31 Dec. 2021	as of 31 Dec. 2020
	%	EUR in millions	EUR in millions
DC Nordseekabel GmbH und Co. KG, Bayreuth, Germany	50.0	839	901

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 Promotion of developing countries and emerging economies.

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 in Turkey (KfW's investment in GGF is also part of the business sector Promotion of developing countries and emerging economies).

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 Energy (BMWi) participates in young technology companies by offering venture capital, together with private lead investors.

Entities not included in the consolidated financial statements

Six subsidiaries, two joint ventures, six associated companies, and seven special purpose vehicles (including structured entities) of minor significance to the presentation of the net assets, financial position and results of operations of KfW Group have not been consolidated; instead, they are presented in the statement of financial position under Securities and investments or Loans and advances. These companies account for approximately 0.04% of KfW Group's total assets.

List of KfW Group shareholdings as of 31 December 2021

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2021 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 ⁶⁾	Cologne	100.0	EUR	1.0000	2,506,622	215,585
2	Interkonnektor GmbH ⁶⁾	Frankfurt am Main	100.0	EUR	1.0000	88,866	20,201
3	KfW Beteiligungsholding GmbH ⁶⁾	Bonn	100.0	EUR	1.0000	1,651,613	72,243
4	KfW Capital GmbH & Co. KG ⁶⁾	Frankfurt am Main	100.0	EUR	1.0000	487,101	0
B. Subsidiaries not included in the consolidated financial statements							
5	Finanzierungs- und Beratungsgesellschaft mbH ⁶⁾	Berlin	100.0	EUR	1.0000	5,654	612
6	tbG Technologie-Beteiligungsgesellschaft mbH ⁶⁾	Bonn	100.0	EUR	1.0000	67,173	13,013
C. Joint ventures not included in the consolidated financial statements							
7	Deutsche Energie-Agentur GmbH (dena) ⁵⁾	Berlin	26.0	EUR	1.0000	6,072	499
D. Other shareholdings (only capital shares totalling at least 20%)							
8	Berliner Energieagentur GmbH ⁵⁾	Berlin	25.0	EUR	1.0000	7,543	556
9	eCapital Technologies Fonds II GmbH & Co. KG ⁵⁾	Münster	24.8	EUR	1.0000	13,044	-24
Shareholdings of KfW IPEX-Bank GmbH							
A. Subsidiaries not included in the consolidated financial statements							
1	Bussard Air Leasing Ltd. i. L. ⁵⁾	Dublin, Ireland	100.0	USD	1.1326	-2,152	165
2	KfW IPEX-Bank Asia Ltd. ⁶⁾	Singapore, Singapore	100.0	SGD	1.5279	1,465	27
3	Sperber Rail Holdings Inc. ⁵⁾	Wilmington, USA	100.0	SGD	1.1326	69	-7
Shareholdings of KfW Beteiligungsholding GmbH							
A. Fully consolidated subsidiaries included in the consolidated financial statements							
1	KfW IPEX-Bank GmbH ⁶⁾	Frankfurt am Main	100.0	EUR	1.0000	3,179,587	0

List of KfW Group shareholdings as of 31 December 2021

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2021 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	⁵⁾	⁵⁾
B. Other shareholdings (only capital shares totalling at least 20%)							
2	Aavishkaar Frontier Fund	Mumbai, India	20.8	USD	1.1326	36,928	3,867
3	Ace Power Embilipitiya Pvt Ltd.	Colombo, Sri Lanka	26.0	LKR	230.7705	5,853,746	1,275,473
4	ACON Latin America Opportunities Fund IV-A L.P.	Washington, D.C., USA	39.9	USD	1.1326	50,197	-406
5	Acon Latin America Opportunities Fund-A L.P.	Washington, USA	40.0	USD	1.1326	18,930	-16
6	ACON Retail MXD L.P.	Toronto, Canada	100.0	USD	1.1326	9,647	-26
7	Adobe Social Mezzanine Fund I, L.P.	Mexico City, Mexico	32.9	USD	1.1326	6,584	-4,837
8	ADP Enterprises W.L.L.	Manama, Bahrain	23.3	EUR	1.0000	232,858	-10,274
9	ADP II Holding 11 S.A.R.L.	Munsbach, Luxembourg	33.3	USD	1.1326	30,497	-170
10	Advent Latin American Private Equity Fund III-B, L.P.	Wilmington, USA	100.0	USD	1.1326	819	-197
11	AEP China Hydro Ltd.	Ebène Cyber-City, Mauritius	30.2	USD	1.1326	⁵⁾	⁵⁾
12	AfricInvest III – SPV 1	Port Louis, Mauritius	21.8	EUR	1.0000	⁵⁾	⁵⁾
13	Agrofundos Brasil VI Fundo de Investimento em Participações Multiestratégia	São Paulo, Brazil	29.9	BRL	6.3101	⁵⁾	⁵⁾
14	AO Bucharagips	Kogon, Uzbekistan	24.9	UZS	12.252.8300	⁵⁾	⁵⁾
15	Apis Growth 2 Ltd.	Ebène Cyber-City, Mauritius	25.6	USD	1.1326	39,133	-4,361
16	Banque Nationale de Développement Agricole S. A.	Bamako, Mali	21.4	XOF	655.9570	64,230,493	8,197,166
17	Banyan Tree Growth Capital, LLC	Ebène Cyber-City, Mauritius	27.0	USD	1.1326	29,317	-281
18	Benetex Industries Ltd.	Dhaka, Bangladesh	28.3	BDT	97.5065	⁵⁾	⁵⁾
19	Berkeley Energy Wind Mauritius Ltd.	Ebène Cyber-City, Mauritius	25.8	EUR	1.0000	12,232	-36,352
20	CGFT Capital Pooling GmbH & Co. KG	Berlin, Germany	40.0	EUR	1.0000	6,044	-754
21	CoreCo Central America Fund I, L.P.	Wilmington, USA	22.0	USD	1.1326	19,318	-7,542
22	Crescera Investimentos Growth Capital Fund I-B, L.P.	Wilmington, USA	20.0	USD	1.1326	41,109	-5,035

List of KfW Group shareholdings as of 31 December 2021

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2021 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%)							
23	Da Vinci Emerging Technologies Fund III L.P.	St. Peter, Guernsey	20.0	USD	1.1326	⁵⁾	⁵⁾
24	Darby Latin American Private Debt Fund IIIA L.P.	Toronto, Canada	37.6	USD	1.1326	19,918	981
25	ECP Africa Fund IV LLC	Ebène Cyber-City, Mauritius	34.6	USD	1.1326	57,280	-1,199
26	Elbrus Capital Fund III B S.C.Sp.	Luxembourg, Luxembourg	23.8	USD	1.1326	⁵⁾	⁵⁾
27	Emerald Sri Lanka Fund I Ltd.	Ebène Cyber-City, Mauritius	23.5	USD	1.1326	17,478	-910
28	EMF NEIF I (A) L.P.	Fareham, United Kingdom	28.1	USD	1.1326	28,349	-926
29	EMX Capital Partners L.P.	Mexico City, Mexico	20.1	USD	1.1326	60,724	-7,614
30	Evonik Lanxing (Rizhao) Chemical Industrial Co. Ltd.	Rizhao, China	41.0	CNY	7.1947	127,435	239
31	Fortio Co. Ltd.	George Town, Cayman Islands	46.2	USD	1.1326	3,000	0
32	Frontier Bangladesh II L.P.	George Town, Cayman Islands	20.0	USD	1.1326	18,844	3,742
33	Grand Bremner Corp Pte. Ltd.	Singapore, Singapore	24.7	USD	1.1326	54,910	-1
34	Grassland Finance Ltd.	Hong Kong, Hong Kong	24.9	CNY	7.1947	435,437	2,537
35	ICS OCN Total Leasing & Finance SA (TLF)	Amsterdam, Netherlands	25.0	EUR	1.0000	3,866	-41
36	Kandao Fund II (A) L.P.	Bogota, Colombia	53.1	USD	1.1326	39,610	-3,107
37	Knauf Gips Buchara OOO	Bukhara, Uzbekistan	25.0	USD	1.1326	⁵⁾	⁵⁾
38	Knauf Gypsum Philippines Inc.	Makati, Philippines	25.0	PHP	57.7630	1,405,610	-141,499
39	Landsberg Investments S.L.	Barcelona, Spain	49.8	EUR	1.0000	11,450	-1,689
40	Leiden PE II L.P.	Toronto, Canada	26.6	USD	1.1326	84,681	-2,635
41	Lereko Metier REIPPP Fund Trust	Dunkeld, South Africa	32.3	ZAR	18.0625	968,793	78,491
42	Lereko Metier Solafrica Fund I Trust	Johannesburg, South Africa	47.5	ZAR	18.0625	153,267	24,163
43	Lombard Asia V L.P.	George Town, Cayman Islands	21.1	USD	1.1326	⁵⁾	⁵⁾
44	Lovcen Banka AD	Podgorica, Montenegro	25.1	EUR	1.0000	22,820	1,504

List of KfW Group shareholdings as of 31 December 2021

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2021 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%)							
45	MC II Pasta Ltd.	Qormi, Malta	32.2	EUR	1.0000	17,996	-11
46	Metier Retailability Partnership	Sandhurst, South Africa	22.1	ZAR	18.0625	935,689	227,996
47	Navegar II (Netherlands) B.V.	Amsterdam, Netherlands	29.2	USD	1.1326	5)	5)
48	Novel Sky Global Limited	Road Town, Brit. Virgin Islands	25.0	USD	1.1326	5)	5)
49	OAO Belgips	Minsk, Belarus	50.0	BYN	2.9013	5)	5)
50	Onstar Galaxy SPV Pte. Ltd.	Singapore, Singapore	34.0	USD	1.1326	5)	5)
51	Operadora de Servicios Mega S.A. de C.V. SOFOM E.R.	Zapopan, Mexico	21.9	MXN	23.1438	1,495,652	600,220
52	Orilus Investment Holdings Pte. Ltd.	Singapore, Singapore	33.0	USD	1.1326	61,420	-22,269
53	Rent 2 Own Holdings Pte Ltd	Singapore, Singapore	21.2	USD	1.1326	5)	5)
54	Russia Partners Technology Fund L.P.	George Town, Cayman Islands	21.6	USD	1.1326	170,176	-2,631
55	SEAF Central and Eastern Europe Growth Fund LLC	Wilmington, USA	23.9	USD	1.1326	5)	5)
56	Sierra Madre Philippines I, L.P.	George Town, Cayman Islands	20.0	USD	1.1326	35,592	8,915
57	Siguler Guff Global Emerging Markets Co-Investment Opportunities (AIF) LP	London, United Kingdom	99.9	USD	1.1326	11,649	-667
58	Stratus SCP Fleet Fundo de Investimento em Participações – Multiestratégia	São Paulo, Brazil	39.7	BRL	6.3101	49,195	8,418
59	Stratus SCP II Investors – B LP	Edinburgh, United Kingdom	75.0	USD	1.1326	17,864	-3,020
60	Takura II Feeder Fund Partnership	Cape Town, South Africa	25.0	USD	1.1326	46,407	-527
61	Tolstoi Investimentos S.A.	São Paulo, Brazil	31.1	BRL	6.3101	5)	5)
62	TOO Isi Gips Inder	Inderborskij, Kazakhstan	40.0	KZT	494.1200	5)	5)
63	TOO Knauf Gips Kapschagaj	Kapchagay, Kazakhstan	40.0	KZT	494.1200	5)	5)
64	Triple P SEA Financial Inclusion Fund LP	Singapore, Singapore	25.2	USD	1.1326	41,970	5,515
65	Vietnam Opportunity Fund II PTE. LTD.	Singapore, Singapore	32.0	USD	1.1326	5)	5)

List of KfW Group shareholdings as of 31 December 2021

No.	Name	Place	Capital share in %	CC ¹⁾	Exchange rate EUR 1.00 = CU as of 31 Dec. 2021 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%)							
66	Vinci Impact and Return IV A LP	Toronto, Canada	56.7	USD	1.1326	⁵⁾	⁵⁾
67	Whitlam Holding PTE. Ltd.	Singapore, Singapore	38.7	USD	1.1326	56,324	5,361
68	Worldwide Group Inc	Charlestown, Saint Kitts and Nevis	33.4	USD	1.1326	26,996	1,959
69	wpd Duqueco S.p.A.	Santiago de Chile, Chile	24.5	USD	1.1326	17,545	-586
70	wpd Malleco S.p.A.	Santiago, Providencia, Chile	24.5	USD	1.1326	80,046	-8,381
71	wpd Negrete S.p.A.	Santiago, Providencia, Chile	24.5	USD	1.1326	10,954	-1,520
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	419,593	12,275
B. Joint ventures not included in the consolidated financial statements							
2	DC Nordseekabel Beteiligungs GmbH	Bayreuth	50.0	EUR	1.0000	33	1
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	39	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 as of 31 December 2021 is available.

The data is based on the most recent annual financial statements of the investee (where available).

(73) Events after the balance sheet date

KfW expects that the latest developments in the Russia-Ukraine conflict, with Russia's attack on Ukraine on 24 February 2022, will have a negative impact on German and global economic output in 2022. This may therefore adversely affect achievement of our objectives set for financial year 2022. In KfW's current assessment, the crisis particularly affects KfW's loan and equity investment exposures in Ukraine and Russia. KfW's direct exposure in Russia has been decreasing since 2014 and amounted to EUR 457 million as of 31 January 2022. It is partially secured by export and credit insurance, and amounts to EUR 153 million net. KfW's direct exposure in Ukraine is EUR 470 million and is largely covered by guarantees from the Federal Republic of Germany; that net exposure amount is EUR 48 million. Indirect effects of the conflict can also be expected on KfW's loan and equity investment exposures and therefore on the group's business performance and earnings position as well. For instance, there may be a negative impact on the energy and commodity markets, and consequences of being affected by the sanctions imposed. It is not really possible to give a precise forecast of the overall impact on KfW's net assets, financial and earnings position at present, given the dynamic development of the military conflict, particularly concerning uncertain further escalation or de-escalation steps. KfW will continue to closely monitor the development of the conflict and the consequences for its business.

No further events of particular impact on KfW's net assets, financial and earnings position occurred after the end of the financial year (as of 8 March 2022)⁵⁾.

⁵⁾ Date of Executive Board approval of publication.



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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, 1 March 2022

KfW
The Executive Board



Stefan Wintels
(Chief Executive Officer)



Melanie Kehr



Christiane Laibach



Bernd Loewen



Dr Stefan Peiß

Independent auditor's report¹⁾

To KfW

Report on the audit of the consolidated financial statements and of the group management report

Opinions

We have audited the consolidated financial statements of KfW, Frankfurt am Main and its subsidiaries (the Group), which comprise the consolidated statement of comprehensive income for the fiscal year from January 1, 2021 to December 31, 2021, the consolidated statement of financial position as at December 31, 2021, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year from January 1, 2021 to December 31, 2021, and the notes to the financial statements including a summary of significant accounting policies. In addition, we have audited the group management report of KfW, which is combined with the management report of KfW, for the fiscal year from January 1, 2021 to December 31, 2021. In accordance with the German legal requirements, we have not audited the content of the sections "Declaration of compliance" and "Non-financial statements" of the group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e 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 December 31, 2021 and of its financial performance for the fiscal year from January 1, 2021 to December 31, 2021, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the sections "Declaration of compliance" and "Non-financial statements" of the group management report.

Pursuant to Sec. 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 group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group 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 opinions on the consolidated financial statements and on the group 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.

Other information

According to Art. 8 KfW Bylaws, the Board of Supervisory Directors is responsible for the preparation of the annual Report of the Board of Supervisory Directors. According to Art. 19 KfW Bylaws, the Executive Board and the Board of Supervisory Directors are required to annually declare that they recognise the Public Corporate Governance Code and to publish the declaration of compliance as part of the Corporate Governance Report. In all other respects, the Executive Board is responsible for the other information. The other information comprises the sections “Declaration of compliance” and “Non-financial statements” of the group management report, the Corporate Governance Report, the Responsibility statement and the section “Key figures of KfW Group” of the Annual Report, which we obtained prior to the date of this auditor’s report, and the Letter from the Executive Board, the Report of the Board of Supervisory Directors as well as the sections “Executive Board, Directors and Managing Directors of KfW Group” and “Members and tasks of the Board of Supervisory Directors” of the Annual Report, which are expected to be made available to us after that date.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon. In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Board and the Board of Supervisory Directors for the consolidated financial statements and the group management report

The Executive Board is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec 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 Board is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Executive Board is responsible for assessing the Group’s ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the Executive Board is responsible for the preparation of the group 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 Board is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group 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 group 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 group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group 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 group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with Sec. 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 group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the Executive Board and the reasonableness of estimates made by the Executive Board and related disclosures.
- Conclude on the appropriateness of the Executive Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the group 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 Board in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the Executive Board as a basis for the prospective information and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other legal and regulatory requirements

Report on the assurance in accordance with Sec. 317 (3a) HGB on the electronic reproduction of the consolidated financial statements and the group management report prepared for publication purposes

Reasonable assurance opinion

We have performed assurance work in accordance with Sec. 317 (3a) HGB to obtain reasonable assurance about whether the reproduction of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the attached electronic file "KfW_KA_ZusLB_ESEF-2021-12-31.zip" [Hash: sha256: 77e1ce0e271f8d342f9983ad5c3c7924e9675eed27a808026118881d372718b8] and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance only extends to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor to any other information contained in the above-mentioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the group management report contained in the above-mentioned attached electronic file and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the above-mentioned file beyond this reasonable assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from January 1, 2021 to December 31, 2021 contained in the "Auditor's report on the consolidated financial statements and on the group management report" above.

Basis for the reasonable assurance opinion

We conducted our assurance work on the reproduction of the consolidated financial statements and the group management report contained in the above-mentioned attached electronic file in accordance with Sec. 317 (3a) HGB and the IDW Assurance Standard: Assurance on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Sec. 317 (3a) HGB (IDW AsS 410) (10.2021). Accordingly, our responsibilities are further described below in the "Group auditor's responsibilities for the assurance work on the ESEF Documents" section. Our audit firm has applied the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the Executive Board and the Board of Supervisory Directors for the ESEF documents

The Executive Board is responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the group management report in accordance with Sec. 328 (1) Sentence 4 No. 1 HGB and for the tagging of the consolidated financial statements in accordance with Sec. 328 (1) Sentence 4 No. 2 HGB.

In addition, the Executive Board is responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB for the electronic reporting format.

The Board of Supervisory Directors is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Group auditor's responsibilities for the assurance work on 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 Sec. 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls
- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815 on the technical specification for this electronic file.
- Evaluate whether the ESEF documents enables a XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) 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 group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format – including the versions to be published in the Bundesanzeiger [German Federal Gazette] – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

Eschborn/Frankfurt am Main, 8 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Koch
Wirtschaftsprüfer
(German Public Auditor)

Hölscher
Wirtschaftsprüfer
(German Public Auditor)

Imprint

Published by
KfW Group
Communications Department
Palmengartenstrasse 5–9, 60325 Frankfurt am Main, Germany
Phone +49 69 7431 0, Fax +49 69 7431 2944
infocenter@kfw.de, www.kfw.de

Design and realisation
MEHR Kommunikationsgesellschaft mbH, Düsseldorf

Photography
KfW/Alex Habermehl | Pages 5, 6, 8
KfW/Thorsten Futh | Page 7
KfW/Thomas Meyer/OSTKREUZ | Page 9
BMWK/Dominik Butzmann | Page 11

Printed by
Schirmer Medien GmbH & Co. KG, Ulm-Donautal

Printed on
Algo Design, Papier Union
Iona offset, Inapa



KfW Group
Palmengartenstrasse 5-9
60325 Frankfurt am Main
Germany
Phone +49 69 7431 0
Fax +49 69 7431 2944
infocenter@kfw.de
www.kfw.de

600 000 4969