Management Report and Financial Statements 2019

KFW

Key figures of KfW

Overall activities of KfW

	2019	2018	2017
	EUR in millions	EUR in millions	EUR in millions
Financial statements			
Volume of business	583,999	567,019	553,100
Total assets	505,991	489,634	477,947
Bonds issued	430,394	419,370	408,606
Own funds	26,832	25,552	24,668
Net interest income before promotional expense	2,067	1,996	1,964
Net commission income before promotional expense	394	263	193
Administrative expense before promotional expense	1,039	1,265	1,027
Promotional expense	159	216	213
Profit for the year	1,280	884	895

Key regulatory figures

	31 Dec. 2019	31 Dec. 2018	31 Dec. 2017
	in %	in %	in %
Cost-income ratio before promotional expense	42.2	56.0	47.6
Tier 1 capital ratio[1)]	21.3	20.1	20.6
Total capital ratio[1)]	21.3	20.1	20.6

[1)] The figures relate to the group as a whole; data are based on the IFRS consolidated financial statements.

Employees of KfW

2019	2018	2017
5,475	5,184	4,990

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.

Responsible Banking

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General economic environment

According to IMF estimates, global real gross domestic product (GDP) increased by 2.9% in 2019 compared with 2018 (see table on gross domestic product and global trade). Global economic growth was therefore slower than in 2018, when global real GDP rose by 3.6% year on year, and also slower than the average growth rate for 2011 to 2018, which was also 3.6% per year.

This was accompanied by a lower increase in industrial production in the period from January to November 2019 compared with the prior-year period (see table on industrial production). As a result, also global trade** has slowed down, measured by growth rates (see table on gross domestic product and global trade).

Gross domestic product and global trade at constant prices; year-on-year change

	2019 estimate[1)]	2018[1)]	2011–2018 average[2)]
	in %	in %	in %
Global economy*	2.9	3.6	3.6
Global volume of trade**	1.0	3.7	4.0

*The IMF aggregates the annual growth rates of gross domestic product at constant prices of each country on the basis of the shares of country-specific gross domestic product at purchasing power parities in the corresponding global aggregate to the growth rate of global real GDP.
**Goods and services; average of annual percentage changes in global imports and exports.
Sources:
1) IMF (2020), World Economic Outlook. An Update to the Key WEO Projections, 20 January 2020.
2) KfW Research calculations based on World Economic Outlook Data, October 2019 Edition and IMF (2020), World Economic Outlook. An Update to the Key WEO Projections, 20 January 2020.

Industrial production; change over prior-year period

	Average Jan.–Nov. 2019	Average Jan.–Nov. 2018
	in %	in %
Volume of global industrial production*	0.7	3.1

*Excluding construction; seasonally adjusted and import-weighted.
Source: KfW Research calculations based on data from CPB Netherlands Bureau for Economic Policy Analysis

As in the global economy as a whole, economic development in the member states of the **European Economic and Monetary Union (EMU)** also lost momentum last year. Measured in terms of price-adjusted gross domestic product, economic output in the EMU countries rose by 1.2% in 2019 over the previous year. Although the increase in price-adjusted GDP was therefore just 0.1 percentage points below the average growth of 2011 to 2018, the difference compared to 2018 was larger at 0.7 percentage points (see table on gross domestic product at constant prices). The slowdown in price-adjusted economic growth affected all four major euro-area economies (Germany, France, Italy and Spain). According to the European Commission, the lower growth rate of price-adjusted gross domestic product is due to escalating trade conflicts, the below-average increase in the volume of global trade and the decline in global economic growth. Uncertainty resulting from tariff threats, increasing geopolitical tension, lack of clarity regarding the terms of Brexit and the continued weakness of the non-financial economy has also been identified by the European Commission as a negative factor for price-adjusted economic growth in 2019.

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

	2019	2018	2011–2018 average
	in %	in %	in %
Euro area	1.2	1.9	1.3
Germany	0.6	1.5	1.9

Source: Eurostat, Destatis

In **Germany**, price-adjusted GDP grew by 0.6% year on year in 2019, which was not only less than in 2018 (+1.5%), but also less than the average for 2011 to 2018 (see table on gross domestic product at constant prices). Domestic spending in 2019 was a positive factor in the growth of price-adjusted gross domestic product. With a sustained rise in the number of people in employment located in Germany (+0.9%), there was an increase in both price-adjusted consumer spending (+1.8%) and price-adjusted gross fixed capital formation in construction (+3.8%). Gross fixed capital formation in machinery and equipment also increased in 2019 (+0.4%). In contrast, net exports slowed the increase in price-adjusted GDP in 2019 by 0.4 percentage points, with the growth in price-adjusted exports (+0.9%) lagging behind the growth in price-adjusted imports (+1.9%). As regards output, the 3.6%-decline in price-adjusted gross value added in the manufacturing industry (excluding construction) curbed growth in price-adjusted GDP in 2019.

Development in the **financial markets** was dominated in 2019 by the monetary policy turnaround of the US Federal Reserve and renewed monetary easing by the European Central Bank (ECB). The Federal Reserve initially decided not to raise its key rates any further. It even lowered its key rate range by 25 basis points (bp) three times between July and October, reducing it to 1.50%–1.75%. The ECB was prompted in March 2019 to announce a new series of targeted longer-term refinancing operations ("TLTRO III") starting in September 2019. It then adopted a further package of expansionary monetary policy measures in September. These included a 10 bp cut in its deposit rate to –0.50% and the resumption of net asset purchases from November 2019 (for a monthly amount of EUR 20 billion on an open-ended basis). The ECB had only completed its last asset purchase programme at the end of 2018.

Against the backdrop of these monetary policy measures, money market interest rates, swap rates and government bond yields declined in the euro area and in the US compared to the previous year. For instance, the 3-month EURIBOR averaged –0.36% in 2019 (2018: –0.32%); the 5-year EUR swap rate averaged –0.14% (2018: +0.35%); and the yield of the 10-year German government bond was –0.21% (2018: +0.46%). In the US, the 3-month LIBOR in 2019 was 2.33% on average for the year, compared with 2.31% in the previous year, but declined to 1.91% by the end of 2019. The 5-year USD swap rate averaged 1.94% in 2019 compared with 2.84% the previous year, and the yield on 10-year US Treasuries was 2.14% compared with 2.91% the previous year. The yield curves for the EUR and the USD flattened as measured by the difference between the yields of 10 and 2-year government bonds. On average in 2019, the curve steepness measured in this way for German government bonds was 46 bp (2018: 105 bp) and for US government bonds 17 bp (2018: 39 bp).

In the stock markets, the US S&P 500 and Dow Jones Industrial leading indices reached new all-time highs at the end of 2019 and also traded higher on an annual average than in 2018. Although Germany's leading DAX 30 index stood at 13,249 points at the end of 2019, around 25% higher than the beginning of the year, the 2019 average of 12,109 points was just under one percent below the prior-year average. The trade-weighted euro weakened on average by just under 2% (against the currencies of the 18 most important trading partners outside the euro area) in 2019. It fared somewhat worse against the US dollar. The EUR/USD exchange rate (measured in USD per EUR) averaged 1.18 in 2018, but was down to just 1.12 in 2019, representing a decline of 5%.

Sources:
– Destatis: Fachserie 18 Series 1.1, National Accounts - Domestic Product - First annual results 2019, January 2020
– Federal Reserve, FOMC statement, 30 January 2019
– Federal Reserve, FOMC statement, 31 July 2019
– Federal Reserve, FOMC statement, September 2018, 2019
– Federal Reserve, FOMC statement, 30 October 2019
– European Central Bank, Press Conference, Mario Draghi, President of the ECB, Luis de Guindos, Vice-President of the ECB, Frankfurt am Main, 7 March 2019
– European Central Bank, Press Conference, Mario Draghi, President of the ECB, Luis de Guindos, Vice-President of the ECB, Frankfurt am Main, 12 September 2019
– Bloomberg, Financial market data, 21 January 2020

Strategic objectives 2024

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. Strategic objectives 2024 was adopted in 2019.

KfW's **primary objective** is **sustainable promotion**. It aims to improve economic, social and environmental living conditions in Germany, Europe and 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 is also aiming for an increase in the volume of new commitments in line with the development of Germany's nominal GDP growth.

It should be noted with regard to the principle of sustainability that KfW aims to achieve a ranking among the top five national and international promotional banks in the relevant sustainability ratings (Sustainalytics, imug, ISS ESG).

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 and processes and customer and employee centricity. Digitalisation and agility are considered fundamental prerequisites 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 two consecutive sub-processes performed every year: strategic planning and operational planning. The overall strategy and planning process includes the collaboration of staff responsible for planning in all areas.

The group-wide strategic objectives set by the Executive Board form the basis for the group's strategic planning. 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 strategic objectives are reviewed annually for relevance, completeness and aspiration level and are adjusted where necessary, for example, due to changed parameters or newly determined focus areas. Efforts are made, however, to ensure that there are no fundamental changes made to the strategic roadmap in the course of the annual review. Major medium-term strategic initiatives are developed by the business sectors and departments in a base case within this strategic framework. 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 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. This enables identification of any capital bottlenecks arising from strategic considerations or changed parameters, in response to which measures can be agreed on to mitigate such capital shortages. The Executive Board defines top-down objectives for all departments or subsidiaries (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.

The business sectors plan their new business, risks and earnings, and each department their budgets and FTEs based on the top-down objectives defined by the Executive Board, taking into account any changes in external or internal factors. These plans are checked for consistency with the group's and business sectors' strategic planning. 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. The Executive Board approves the resulting operating budget or has plans fine-tuned in a revision round if necessary. Any changes to the business strategy are subject to consultation with the Risk Controlling department in order to ensure consistency between the business and risk strategies. The operational planning process ends when the Executive Board has adopted a final budget for the entire planning period, including the future capital requirement.

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 operating 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. Any changes to the business strategy are subject to consultation with the Risk Controlling department in order to ensure consistency between the business and risk strategy. The Executive Board draws up the operating budget for the entire planning period, including any future capital requirement as well as the business and risk strategy. 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 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 re-
viewed and a systematic variance analysis of early objectives and forecasts is performed at the beginning of every year. Findings gained from this comparison are incorporated into the next planning process. At mid-year, the forecasting process serves as a comprehensive basis for interim management input on quantitative group variables in line with the strategic objectives (new business, risk and earnings in respect of funding opportunities), while providing a guide for 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 to the Executive Board by means of the strategic performance report. The results of the analysis are included in further strategy discussions and strategic planning processes. 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 product group level comprise earnings, cost and FTEs, 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

KfW uses key financial figures in its strategic objectives that treat promotion as the core business activity. It also uses key figures which summarise the results reported on the income statement prepared in accordance with commercial law on the basis of their economic substance.

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 certain asset classes (green bonds, SME loan securitisation). 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.

A breakdown of the promotional business volume by segment is provided in the economic report under "Development of KfW".

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

Interest rate reductions accounted for at present value are the key component of KfW's promotional expenses. KfW grants these reductions for certain domestic promotional loans for new business during the first fixed interest rate period in addition to passing on 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 items Loans and advances to banks or Loans and advances to customers. In addition, the accumulated interest rate reductions over the fixed interest rate period are recognised in Net interest income through profit or loss (see the relevant Notes on KfW's promotional lending business, loans and advances to banks or customers, 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).

Cost/income ratio (before promotional expense)
The cost/income ratio (before promotional expense) comprises administrative expense, (excluding promotional expense) in relation to net interest income and net 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 promotional expense is made to the numerator (administrative expense) and denominator (net interest income and net commission income).

Development of KfW

KfW had a successful promotional year in 2019, reflected in the increase in total promotional volume to EUR 62.5 billion (2018: EUR 60.9 billion). In view of economic performance and the financing environment for commercial and private investors, KfW decreased its promotional business in Germany to EUR 43.4 billion in 2019 from EUR 46.0 billion in 2018. KfW aligned its promotional activities with qualitative targets in 2019, as in the preceding years. The overall economic environment enabled KfW to give priority to issues of particular relevance to the future. Promotion focussed on innovation and digitalisation, as well as on the sustainable improvement of living conditions in Africa and countries in the Middle East.

KfW concluded financial year 2019 with an **earnings position** that surpassed that of the previous year. Net interest and commission income – both before promotional expense – were higher than in previous years. Administrative expense decreased but still weighed on annual profit. The cost/income ratio (before promotional expense) dropped to 42.2% (2018: 56.0%) as a result of lower administrative expense and higher net interest income and net commission income. KfW strengthened its capital base due to its earnings position, with a profit for the year of EUR 1,280 million.

Total assets rose from EUR 489.6 billion to EUR 506.0 billion, with business volume increasing from EUR 567.0 billion to EUR 584.0 billion.

Business performance in 2019 was largely characterised by the following developments:

A. Promotional business volume
KfW increased its promotional business in financial year 2019 over the previous year. Promotional commitment volume grew by EUR 1.6 billion from the previous year's EUR 60.9 billion, to EUR 62.5 billion in 2019.

Demand in Germany decreased by EUR 2.6 billion from EUR 46.0 billion to EUR 43.4 billion. This caused new business volume in the business sector Mittelstandsbank & Private Kunden (SME Bank and Private Clients) to fall by EUR 0.3 billion to EUR 36.0 billion.

Demand for promotional loans declined overall due to the low interest rate environment, however, it differed between programmes. The commitment volume in financing for businesses rose both for the KfW Entrepreneur Loan and under the KfW Renewable Energy Programme.

New commitment volume in the business sector Individualfinanzierung & Öffentliche Kunden (*Customised Finance & Public Clients*) fell from the previous year's EUR 9.5 billion to EUR 7.2 billion.

Commitments in **International financing** of EUR 17.8 billion were above the prior-year level of EUR 13.5 billion. The greatest demand in the Export and project finance business sector came from bank refinancing (Shipping CIRR and the ERP Export Financing Programme including AKA CIRR; 2019: EUR 3.5 billion, 2018: EUR 0.7 billion) and the segments Maritime Industries with EUR 1.5 billion (2018: EUR 1.4 billion) and Power, Renewables and Water with EUR 1.3 billion (2018: EUR 1.3 billion). The KfW Development Bank business area further increased new commitments in 2019. Around EUR 8.8 billion in financing was provided to developing countries and emerging economies over the past year on behalf of the German Federal Government (2018: EUR 8.7 billion), 60% of which was destined for climate and environmental protection projects. A total 39% of all new commitments went to financing projects in Africa and the Middle East.

KfW promotional business volume

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions	Change EUR in millions	Change in %
Domestic business	**43,352**	**45,979**	**–2,627**	**–6**
Mittelstandsbank & Private Kunden (SME Bank & Private Clients)	35,979	36,294	–315	–1
„Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)“	7,217	9,544	–2,327	–24
KfW Capital	156	141	15	11
Financial markets	**1,402**	**1,472**	**–70**	**–5**
International business	**17,774**	**13,459**	**4,315**	**32**
Export and project finance	8,973	4,767	4,206	88
Promotion of developing countries and emerging economies	8,801	8,692	109	1
Volume of new commitments	**62,528**	**60,910**	**1,618**	**3**

B. Operating result above prior-year level
The operating result before valuation and before promotional expense for financial year 2019 stood at EUR 1,435 million and thus above the previous year's figure of EUR 1,081 million. This is due to the rise in net commission income from EUR 263 million to EUR 394 million as well as the decline in administrative expense from EUR 1,265 million to EUR 1,039 million. Net interest income increased year-on-year from EUR 1,996 million to EUR 2,067 million.

C. Valuation result and risk provisioning
Risk provisions for lending business remained unchanged over the prior year with a negative impact on the result of EUR 18 million. This was due in particular to net additions to the individual risk provisions in the business area Mittelstandsbank & Private Kunden (SME Bank and Private Clients), primarily in education as well as start-up financing. These effects were partially offset by recoveries on loans written off.

The contribution from the valuation of equity investments declined to EUR 0 million (2018: EUR 14 million). The securities portfolio made a positive contribution of EUR 8 million (2018: EUR 11 million).

D. Interest rate reductions in the persistent low interest rate environment

KfW's domestic promotional expense, which had a negative impact on KfW Group's earnings position in the financial year, dropped to EUR 159 million (2018: EUR 216 million).

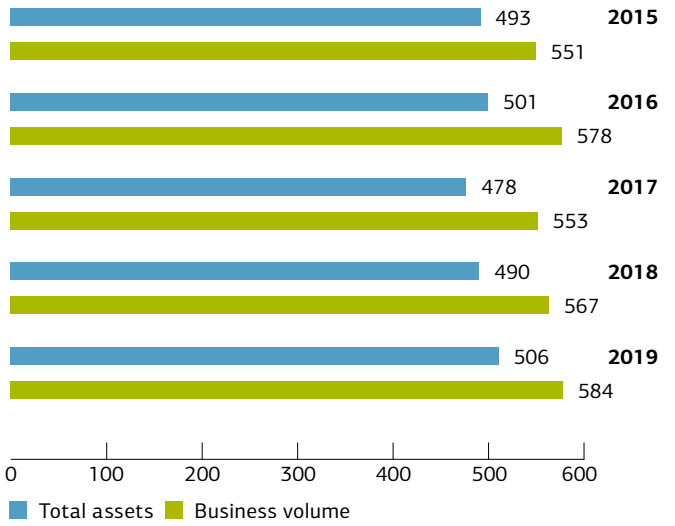
The key components of promotional expense are reductions of interest rates, which reached a volume of EUR 137 million (2018: EUR 185 million) and were thus lower than the previous year. The volume of commitments subsidised with KfW funds decreased from the previous year to EUR 7.7 billion (2018: EUR 11.9 billion).

Development of net assets, financial position and earnings position

KfW saw both its total assets and its volume of business increase in 2019.

Total assets and volume of business

EUR in billions



Volume of receivables

The volume of receivables (loans and advances to banks and customers, including irrevocable loan commitments, loans held in trust and guarantees) rose from EUR 498.6 billion to EUR 500.7 billion. The change over the previous year is largely related to the increase in loans granted under German Financial Cooperation and to currency effects in loans and advances to customers.

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 11.2 billion in 2019 (2018: EUR 11.7 billion).

Guarantees remained unchanged at EUR 0.7 billion while irrevocable loan commitments rose by EUR 0.6 billion to EUR 77.3 billion.

Volume of receivables

	2019 EUR in millions	2018 EUR in millions	Change EUR in millions	Change in %
Loans and advances to banks	309,496	309,366	130	0
Loans and advances to customers	101,923	100,060	1,863	2
Loans held in trust	11,229	11,747	–518	–4
Contingent liabilities from financial guarantees	671	694	–23	–3
Irrevocable loan commitments	77,337	76,691	646	1
Total	**500,656**	**498,558**	**2,098**	**0**

Funding

KfW also funded its business predominantly by issuing bonds in the capital market in the year under review. It raised funds totalling EUR 80.6 billion in 2019 (2018: EUR 76.1 billion) and issued 157 bonds in twelve currencies. Ten "Green Bonds – Made by KfW" with a volume of EUR 8.1 billion made a 10.1% contribution to funding.

Bonds issued increased by EUR 11.0 billion year-on-year and totalled EUR 430.4 billion as of 31 December 2019. Fluctuations in foreign exchange rates, particularly in that of the US dollar, had an impact on portfolio development, as did new issues and maturities.

Bonds issued accounted for 89.0% of borrowed funds, which was below the previous year's level (90.5%). They therefore remain KfW's largest proportional source of funding. The euro market share of 52.0% was smaller than that of the previous year (2018: 60.8%) as was the US dollar market share, which decreased to 25.7% (2018: 26.9%). Other currencies, in particular the pound sterling at 12.7% (2018: 6.6%) made up for this decrease.

The share of funds from banks and customers (excluding federal budget funds) at 4.3% of borrowed funds came in at the previous year's level (2018: 3.7%). This includes cash collateral received primarily to reduce counterparty risk from the derivatives business in the amount of EUR 9.8 billion (2018: EUR 6.2 billion).

Borrowings

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions	Change EUR in millions	Change in %
Federal Republic of Germany				
– ERP Special Fund	382	691	–309	–45
– Federal budget	5,227	4,253	974	23
	5,609	**4,944**	**665**	**13**
Other lenders	3,952	6,767	–2,815	–42
Liabilities to customers	**9,561**	**11,711**	**–2,150**	**–18**
Liabilities to banks	**16,946**	**10,340**	**6,606**	**64**
Bonds issued	27,990	39,678	–11,688	–29
Bearer securities (incl. commercial paper)	399,902	376,943	22,959	6
Accrued interest and interest payable	2,502	2,749	–248	–9
Bonds and notes issued	**430,394**	**419,370**	**11,024**	**3**
Total	**456,901**	**441,421**	**15,480**	**4**

Own funds

The fund for general banking risks remained unchanged from the previous year at EUR 0.6 billion. The entire profit of EUR 1,280 million was allocated to retained earnings.

KfW's own funds thus amounted to EUR 26.8 billion as of 31 December 2019, 5.0% up on the previous year. This increase was due exclusively to the net profit allocated to retained earnings.

Own funds

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions	Change EUR in millions
KfW's subscribed capital	3,750	3,750	0
Uncalled outstanding contributions	–450	–450	0
Capital reserve	8,447	8,447	0
Reserve from the ERP Special Fund	1,191	1,191	0
Retained earnings			
a) Statutory reserve under Article 10 (2) KfW Law	1,875	1,875	0
b) Special reserve under Article 10 (3) KfW Law	11,372	10,092	1,280
c) Special reserve under Article 17 (4) D-Mark Balance Sheet Act[1)]	48	48	0
Fund for general bank risks under Article 340g HGB	600	600	0
Total	**26,832**	**25,552**	**1,280**

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

Both the regulatory total capital ratio and the tier 1 capital ratio were 21.3% (2018: both 20.1%). Ratios are determined based on IFRS figures for the group.

Changes in other significant items in the statement of financial position

Total bonds and other fixed-income securities increased by EUR 1.5 billion to EUR 40.0 billion (2018: EUR 38.5 billion). Holdings of repurchased own issues also recorded an increase – to EUR 6.2 billion from EUR 6.0 billion the previous year. This was equivalent to 1.6% of bonds issued.

At a total amount of EUR 33.9 billion, holdings of securities of other issuers, which make up 84.6% of the total holdings of all bonds and other fixed-income securities, slightly exceeded the previous year's level of EUR 32.5 billion by EUR 1.4 billion. Of the securities from other issuers, 75.8% 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 5.9 billion (previous year: EUR 5.5 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 stood at EUR 3.5 billion (2018: EUR 3.3 billion). KfW's assets held in trust remained at EUR 16.6 billion, unchanged from the previous year.

Other assets rose by EUR 1.9 billion from EUR 0.7 billion to EUR 2.6 billion largely through the adjustment item from foreign currency derivatives in the amount of EUR 1.9 billion (2018: Other liabilities in the amount of EUR 0.6 billion). Moreover, this asset item includes the receivable of EUR 0.6 million due from the Federal Agency for Special Tasks associated with Unification *(Bundesanstalt für vereinigungsbedingte Sonderaufgaben – BvS)*, due to the transfer of the rights and obligations of the State Insurance Company of the GDR in liquidation (SinA) to KfW as of 1 January 2008. However, BvS remains the beneficial owner of the SinA obligations. This receivable is offset by actuarial provisions in the same amount. Other liabilities decreased by EUR 0.8 billion to EUR 0.1 billion particularly due to the currency adjustment asset item reported in the current year.

The primary component of deferred charges are the differences between the repayment amount and the lower issuing amount in the context of borrowed funds (discounts and placing commissions) and upfront payments for derivative financial instruments which are amortised pro rata temporis. Deferred income includes in particular premiums from certificated liabilities and accrued upfront payments for derivative financial instruments deferred pro rata temporis.

Provisions remained unchanged from the previous year at EUR 2.5 billion. The total amount includes provisions for pensions and similar obligations (EUR 1.5 billion) and other provisions (EUR 1.0 billion). Other provisions include in particular the actuarial provisions relating to SinA, the provisions for early retirement and the provision for variable remuneration components.

Earnings position

KfW's operating result before valuation and promotional expense was EUR 1,435 million, which was higher (by EUR 354 million) than the previous year's figure of EUR 1,081 million.

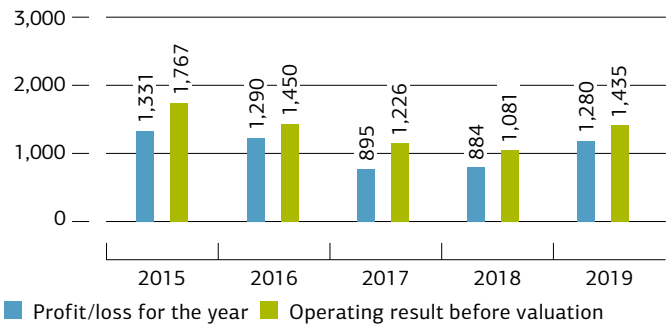
At EUR 2,067 million, net interest income (before promotional expense) was higher than the previous year (EUR 1,996 million). The increase was due to lower interest expense of KfW on the money and capital markets and was partially offset by a reduction in interest income from lending and money-market transactions.

Net commission income (before promotional expense) of EUR 394 million was above (by EUR 131 million) the previous year's level of EUR 263 million. The increase was mainly due to remuneration for the "Baukindergeld" promotional programme. KfW also generated commission income totalling EUR 240 million (2018: EUR 186 million) from the administration of German Financial Cooperation in the business sector Promotion of developing countries and emerging economies. The increase in payments from the Federal Government includes income received in 2019 from final billings of programmes and the administration of Financial Cooperation for 2018. The remuneration from the Federal Government was offset by related administrative expenses.

Administrative expense (before promotional expense) decreased by EUR 227 million to EUR 1,039 million. The decrease is primarily due to a change in the presentation of effects from discounting pension provisions which were recognised in Net other operating income for the first time in 2019, instead of in Personnel expense as previously reported. This change in presentation also affected Net other operating income, which declined over the previous year from EUR 88 million to EUR 13 million.

Non-personnel expense decreased by EUR 50 million in financial year 2019, largely due to lower costs for external service provision required to meet regulatory requirements and for the modernisation of KfW's information technology architecture.

Operating result before valuation and before promotional expense and profit/loss for the year
EUR in millions



The positive valuation result of EUR 8 million (2018: EUR 26 million) is primarily attributable to the realised result of the securities included in current assets.

Risk provisions generated an expense of EUR 18 million as in the previous year. Net additions to specific valuation allowances, particularly from education financing, were offset by income from successful recovery of loans previously written off. There was an increase in specific valuation allowances and specific provisions for the lending business from EUR 465 million to EUR 490 million. Non-performing loans in the amount of EUR 79 million were written off in financial year 2019 (2018: EUR 123 million).

KfW's domestic promotional expense, which has a negative impact on its earnings position, amounted to EUR 159 million in 2019, following EUR 216 million in 2018, and was thus below the prior-year level and projections. The key component of KfW's promotional expense is interest rate reductions of EUR 137 million, granted during the first fixed interest rate period in addition to passing on its favourable refinancing conditions. Moreover, promotional expense, as reported in Net commission income and Administrative expense, was incurred in the amount of EUR 22 million (2018: EUR 30 million). This spending was aimed among other things at the sale of KfW's promotional products.

The net result from transfer agreements was positive with a total of EUR 19 million (2018: EUR 16 million). This includes primarily interest on the silent contribution in KfW IPEX-Bank GmbH.

Financial year 2019 closed with a profit for the period of EUR 1,280 million (2018: EUR 884 million), which was fully allocated to retained earnings.

Reconciliation of earnings position before promotional expense to the income statement prepared in accordance with commercial law for financial year 2019

Earnings position		Promotional expense	Cross compensation		German Commercial Code income statement form
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	
Net interest income (before promotional expense)	2,067	–137		1,929	Net interest income incl. current income
Net commission income (before promotional expense)	394	–13		381	Net commission income
General administrative expense (before promotional expense)	1,039	9		1,047	General administrative expenses incl. depreciation, amortisation and impairments on property, plant and equipment and intangible assets
Other operating income and expenses	13			13	Other operating income and expenses
Operating result (before risk provisions/ valuation/promotional expense)	**1,435**	**-159**		**1,276**	**Operating result (before risk provisions/valuation)**
Valuation result	8		–8	0	Income from reversals of writedowns of equity investments, shares in affiliated companies and securities held as fixed assets
Risk provisions for lending business	–18		8	–9	Impairment of receivables and certain securities and additions to provisions for loan losses
Net result from transfer agreements	19			19	Income from profit pooling, profit and loss transfer and partial profit transfer agreements as well as expense from loss absorption
Profit/loss from operating activities (before promotional expense)	**1,445**	**-159**		**1,287**	**Profit/loss from operating activities**
Promotional expense	159	-159		0	–
Taxes on income	5			5	Taxes on income
Other taxes	1			1	Other taxes
Profit for the year	**1,280**			**1,280**	**Profit for the year**

Reconciliation of earnings position before promotional expense to the income statement prepared in accordance with commercial law for financial year 2018

Earnings position		Promotional expense	Cross compensation		German Commercial Code income statement form
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	
Net interest income (before promotional expense)	1.996	–185		1.810	Net interest income incl. current income
Net commission income (before promotional expense)	263	–12		251	Net commission income
General administrative expense (before promotional expense)	1.265	18		1.284	General administrative expenses incl. depreciation, amortisation and impairments on property, plant and equipment and intangible assets
Other operating income and expenses	88			88	Other operating income and expenses
Operating result (before risk provisions/ valuation/promotional expense)	**1.081**	**–216**		**866**	**Operating result (before risk provisions/valuation)**
Valuation result	26		–2	24	Income from reversals of writedowns of equity investments, shares in affiliated companies and securities held as fixed assets
Risk provisions for lending business	–18		2	–16	Impairment of receivables and certain securities and additions to provisions for loan losses
Net result from transfer agreements	16			16	Income from profit pooling, profit and loss transfer and partial profit transfer agreements as well as expense from loss absorption
Profit/loss from operating activities (before promotional expense)	**1.106**	**–216**		**889**	**Profit/loss from operating activities**
Promotional expense	216	–216		0	–
Taxes on income	4			4	Taxes on income
Other taxes	1			1	Other taxes
Profit for the year	**884**			**884**	**Profit for the year**

Comparison with the previous year's forecast

As business sector planning and earnings projections are prepared at KfW Group level, the forecasts contained in the 2018 forecast and opportunity report are for KfW Group. The KfW Group target figures are thus compared below with the actual group figures recorded.

	2018 Forecast for 2019 (KfW Group)	2019 Actual (KfW Group)
New business		
Promotional business volume	EUR 78.1 billion	EUR 77.3 billion
Funding	approx. EUR 80 billion	EUR 80.6 billion
Result		
Consolidated profit before IFRS effects	EUR 0.8 billion	EUR 1.4 billion
Strategic target consolidated profit	EUR 1.0 billion	EUR 1.4 billion
Net interest income (before promotional expense)	high	+3%
Low interest environment	detrimental	
Net commission income	> Previous year	+37%
Administrative expense (before promotional expense)	EUR 1,370 million	EUR 1,320 million
CIR (before promotional expense)	46.3%	44.0%
Risk provisions for lending business	*< Standard risk costs significantly higher than 2018*	EUR –174 million
Promotional expense	Prior-year target level	Actual –26%, target –53%

The KfW Group promotional business volume in financial year 2019 at EUR 77.3 billion was lower than expected new business volume of EUR 78.1 billion.

With a consolidated profit of EUR 1.4 billion, the earnings position in financial year 2019 surpassed the forecast of EUR 0.8 billion as well as the strategic target of EUR 1 billion. Administrative expense (before promotional expense) fell to EUR 1,320 million and was lower than expected (EUR 1,370 million). The savings against budget of EUR 50 million in administrative expense resulted from a lower than projected increase in FTEs and lower costs for external capacity support. CIR declined to 44% as a result of the higher income from interest and commissions as well as lower administrative expense.

KfW Group's risk provisions for lending business resulted in an impact on earnings in 2019 of EUR 174 million, which was below the projected standard risk costs (EUR 491 million).

KfW's domestic promotional expense, which has a negative impact on KfW Group's earnings position, was EUR 159 million in financial year 2019, and thus lower than projected (EUR 338 million). The volume of interest rate reductions of EUR 137 million was below the target figure (EUR 310 million). This was partly due to the low demand for interest ratereduced promotional loans. Also, due to the persistently low level of interest rates, no additional stimulus in the promotional business was necessary in order to achieve the promotional objectives.

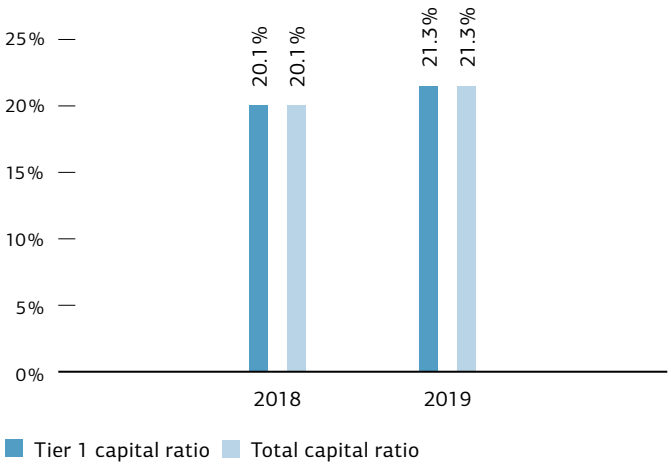
Risk report

This risk report corresponds in structure, scope and content to the group risk report published in the group management report. As risk management and risk controlling are focused on KfW Group, a risk report is not prepared at single institution level.

Overview of key indicators and further developments

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

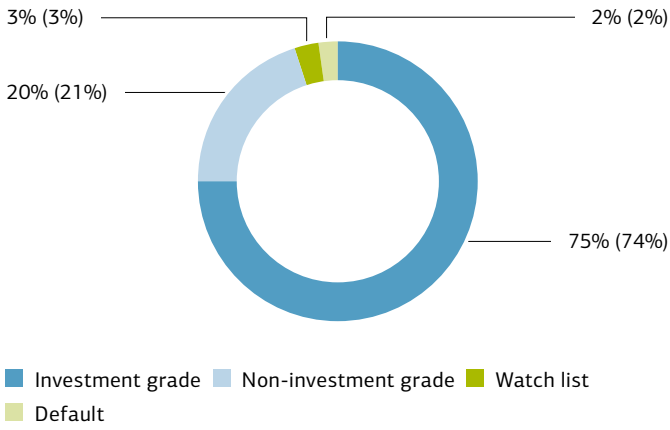
Regulatory capital ratios:



The increase in the capital ratios is attributable in particular to the increase in regulatory capital and to changes in the measurement of counterparty default risk.

Credit risk: Credit quality structure

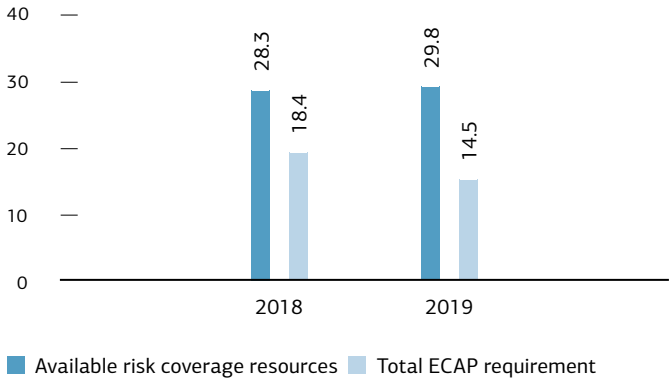
2019 (2018), Net exposure breakdown:



The share of investment grade net exposure increased slightly over the previous year to 75% of total net exposure.

Economic risk-bearing capacity:

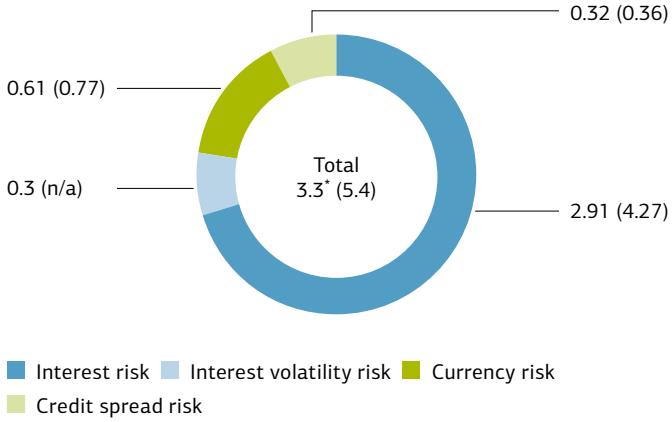
(EUR in billions)



Excess coverage rose in 2019, mainly due to the reduction in the confidence level from 99.99% to 99.90% as part of the further development of the risk-bearing capacity concept. Risk-bearing capacity was maintained at a solvency target of 99.90%.

Market price risk:

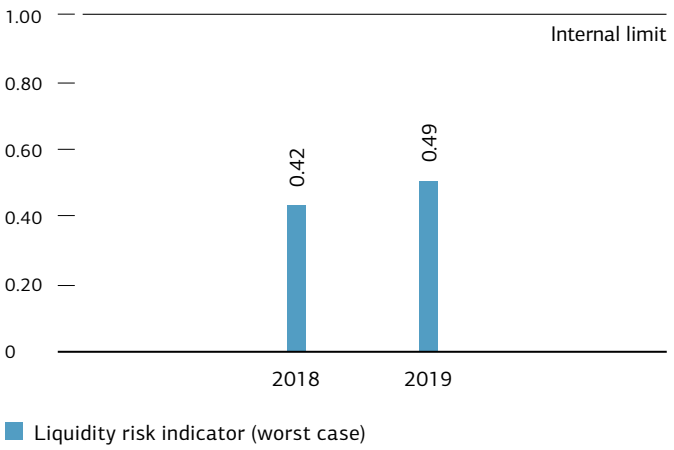
2019 (2018), ECAP (EUR in billions)



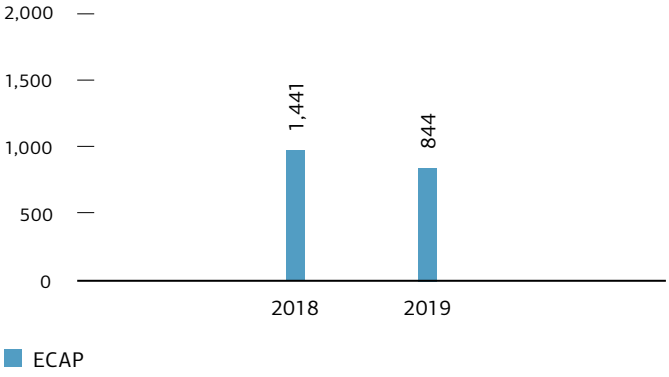
*After diversification

The capital requirement for market price risk decreased as a result of the implementation of an enhanced method for measuring market price risk, including the transition to a new system, as well as the reduction in the confidence level.

Liquidity risk:



Operational risk:
ECAP (EUR in millions)



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

The reduction of the confidence level to 99.90% in 2019 resulted in a decrease in the economic capital requirement (ECAP).

In financial year 2019, as in previous years, KfW Group refined the processes and instruments in its risk management and controlling, taking into account current banking supervisory requirements. This involved, in particular, the adjustment of the risk-bearing capacity concept in view of the requirements of the new guidelines for the supervisory assessment of internal bank risk-bearing capacity concepts and the implementation of the new system for measuring market price risk.

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 the expected development of the risks. 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 adherence to supervisory requirements constituting a fundamental prerequisite to the group's business activities.

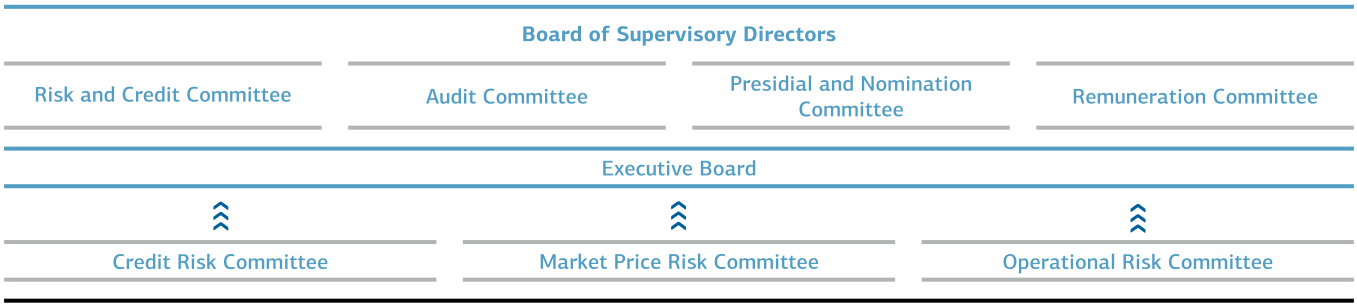
The promotional bank business model determines the group's risk culture, the underlying principle of which enables the group to implement the four regulatory-based elements of risk culture. Incentive structures for employees and their responsibilities are designed accordingly. Senior management specifies the desired code of conduct and sets an example in practicing it, with the desired dialogue established by means of communication with and through the relevant bodies.

Organisation of risk management and monitoring

Risk management bodies and responsibilities

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

Group risk management is carried out by various decision-making bodies, which are linked by their overlapping membership structures. At the top of the system is the Executive Board, which takes the key decisions on risk policy and receives relevant information for this purpose. 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. 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 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 once a month on an ad hoc basis; DEG's CRO is also entitled to vote in these discussions. An additional meeting, held on a quarterly basis, also includes the Director of Risk Controlling and those of the business sectors materially affected by credit risk issues, as well as the DEG CRO and the managing director of KfW Capital responsible for risk issues. Internal Auditing, Group Development and Legal staff are granted guest status. This quarterly meeting involves discussion and decisions on general credit risk matters. 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.

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 Credit Risk Committee acknowledges the decisions taken and reports submitted by the working groups and other important matters they have addressed, on the basis of the working groups' minutes.

Market Price Risk Committee

The Market Price Risk Committee, which meets monthly and as required, is chaired by 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 entitled to vote also include the directors of Risk Controlling, Financial Markets, Accounting and Transaction Management, as well as the CROs of KfW IPEX-Bank and DEG. Internal Auditing and Compliance and Group Development and Economics have guest status. The Market Price Risk Committee discusses KfW Group's market price risk position and assesses the market price risk strategy on a monthly basis. The committee also monitors KfW Group's liquidity risk position and decides on questions relating to the principles and methods applied for the management of market price and liquidity risks, and on funding and transfer pricing and valuation for commercial transactions. The committee prepares the final decision of the Executive Board regarding the interest risk strategy. Furthermore, the Market Price Risk Committee is supported by the Hedge Committee, which deals primarily with the earnings effects of IFRS hedge accounting and the further development thereof, and by the Market Price Risk Working Group. In addition to acknowledging validation reports and decisions on changes to models, this working group also develops, evaluates, decides on and prepares decisions to be made by the Market Price Risk Committee on other methodological issues relating to market price and liquidity risks as well as measurement issues. The Market Price Risk Committee acknowledges the decisions taken and the reports submitted by the Market Price Risk Working Group and other matters it has addressed, on the basis of the working group's minutes.

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 Operational Risk Committee comprises the Chief Risk Officer, who is responsible for chairing the meetings, a further Executive Board member (deputy chair of meetings) and all KfW directors. Moreover, the managing director level of KfW IPEX-Bank, DEG and KfW Capital is represented on the committee. Internal Auditing participates in the meetings but is not entitled to vote. 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. 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 has 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 department.

Risk management approach of KfW Group

OVERVIEW

Strategy/ objectives

Strategic objectives

Business strategy ‹‹‹ ››› Risk strategy (including risk appetite)

Securing KfW's promotional capacity by ensuring capital adequacy (ICAAP) and liquidity (ILAAP)

Risk committees & internal control procedures

Credit Risk Committee | Market Price Risk Committee | Operational Risk Committee

Governance

Processes and instruments

Direction front/back office

Internal control system (ICS)

Direction internal control mechanisms

Direction Risk Management/Controlling*

Direction Compliance

Direction Internal auditing

Risk inventory | Risk assessment | Stress tests | Risk reporting

Process-integrated controls

Internal capital adequacy assessment process (ICAAP)
Ensuring economic and normative risk-bearing capacity, avoiding excessive indebtedness

Internal liquidity adequacy process (ILAAP)

Credit risk

- Portfolio guidelines
- Risk guidelines
- Second vote or central voting (programme business)
- Limit management system
- Proactive collateral management
- Internal rating models
- Loan portfolio model
- Early warning procedure
- Intensive monitoring

Market price risk

- Proprietary models for interest, interest rate volatility, foreign currency and credit spread risks
- Limiting and budgeting

Investment risk

- Risk management process for equity investments at operational level
- Management of strategic equity investments

Operational risk

- Models for determining capital requirements (pillar II)
- Risk assessments
- Risk indicators
- Loss event analyses
- Emergency concepts/crisis team

Project risk

- Central project portfolio management
- Management of individual projects

Reputational risk

- Sustainability management
- Exclusion list and countries blacklist

Liquidity risk

- Proprietary models for liquidity risks
- Liquidity transfer pricing
- Limiting
- Scenario analyses
- Early warning procedure
- Emergency planning

Concentration risk

Risk strategy addresses intra- and inter-risk concentrations as well as profit concentrations

Intra-group risk

Group risk management is monitoring the subsidiaries' business activities according to the "look through" principle

Regulatory risk

Impact and scenarios analyses, including in multi-year capital planning

Model development and validation processes

Model inventory ‹‹‹ ››› Modelling guideline ‹‹‹ ››› Methodology principles

Process-independent review

Corporate and risk culture

New Products Process ("NPP")/changes in operational processes or structures / mergers and acquisitions

IT system landscape

*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 defined risk tolerance, 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 primarily on the quantifiable potential danger for KfW Group's net assets, earnings and liquidity, as well as the materiality threshold defined by the Executive Board. 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 2019 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.

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 are regularly validated in accordance with appropriate principles and guidelines, and are refined where necessary. These include the models for measuring and managing credit, equity investment, market price, liquidity, project and operational risks, as well as the models for financial reporting measurement.

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

INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

The 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. Achievement of the strategic risk-bearing capacity objectives is also monitored in KfW's planning and management process. To avoid excessive debt, the leverage ratio is integrated into the normative perspective as a further control variable.

In 2019, the group developed its economic risk-bearing capacity concept further in response to the revision of the banking supervisory risk-bearing capacity guidelines. One significant change concerned the reduction of the confidence level for risk measurement from 99.99% to 99.90%, whereby the group follows a widely accepted industry standard. The strategic capitalisation objective and the still accepted lower limits on risk-bearing capacity were raised as part of the risk strategy in order to maintain the security level of economic risk-bearing capacity. The economic perspective of the ICAAP serves to protect creditors from economic loss. 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 economic perspective of the ICAAP is reviewed annually to ensure its appropriateness. 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 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/department are taken into account to ensure risk-bearing capacity. The allocated budgets are available to the business sectors/departments 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 tolerance. 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 (pursuant to advanced IRB approach)

	31 Dec. 2019 EUR in millions	31 Dec. 2018[1)] EUR in millions
Total risk exposure in accordance with Art. 92 CRR	138,750	140,988
– Credit risk	*131,477*	*133,758*
– Market price risk	*1,732*	*1,431*
– Operational risk	*5,541*	*5,798*
Regulatory capital	29,526	28,297
– Tier 1 capital	*29,526*	*28,278*
– Tier 2 capital	*0*	*19*
Tier 1 capital ratio	21.3%	20.1%
Total capital ratio	21.3%	20.1%

[1)] Due to effects from adjusting events, total risk exposure as of 31 December 2018 increased slightly by EUR 155 million (0.11%) compared to the previous year's report.

KfW received an initial partial approval as of 30 June 2017 to calculate the regulatory capital ratios in accordance with the advanced IRB approach. The aim is to obtain additional approval for other portfolio segments by 2022. Meanwhile, portfolio segments not yet approved are evaluated with the credit risk standardised approach (CRSA). The increase in the capital ratio is largely attributable to the increase in regulatory capital and to changes in the measurement of counterparty default risk. At 21.3%, the total capital ratio at year-end 2019 remained above the overall capital requirement.

Minimum requirements for total capital ratios

	31 Dec. 2019	31 Dec. 2018
Total SREP capital requirements (TSCR)	**13.5%**	**13.8%**
Capital conservation buffer	*2.5%*	*1.875%*
Countercyclical capital buffer	*0.156%*	*0.114%*
Other systemic buffer	*0.33%*	*-*
Overall capital requirement (OCR)	**16.5%**	**15.7%**

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.

The economic capital requirement for **equity investments** at operational level is measured in the same way as for counterparty and migration risks.

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 types of market price risk.

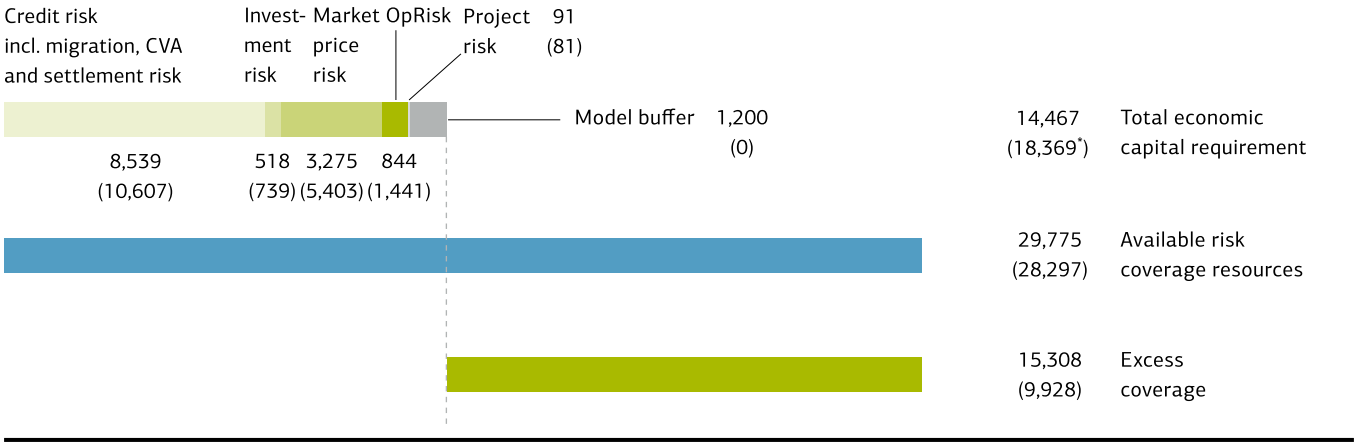
The economic capital requirement for **operational risk** is calculated using an internal statistical model, which was derived from regulatory requirements for advanced measurement approaches. It takes a risk-sensitive approach to internal and external event data and risk scenarios. The capital requirement 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 general assumptions about potential losses in the project portfolio are included in risk measurement.

In addition, as a 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 2019 satisfied a confidence level of 99.90%. The excess coverage of the available financial resources beyond the total capital requirement as of 31 December 2019 of EUR 15,308 million increased compared to 31 December 2018 (EUR 9,928 million). This increase is due to the decline in the total capital requirement, which is mainly attributable to the reduction in the confidence level from 99.99% to 99.90% in the course of revising the risk-bearing capacity concept, and is also attributable to the implementation of enhanced market price risk measurement (see "Market price risk" section). On the other hand, available financial resources have increased in particular due to the accrued profit for 2019. In addition, available financial resources now also include the second half-year profit for 2018, which was not yet included in regulatory capital as of 31 December 2018 and was consequently not included in the available financial resources based on the previous definition.

Economic risk-bearing capacity as of 31 December 2019
EUR in millions



In brackets: figures as of 31 December 2018, solvency level 99.99%
*Incl. hidden burdens of EUR 98 million

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 with a high moral responsibility 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 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 show 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 comprehensive income and other effects influencing normative risk-bearing capacity, such as foreseeable changes in the capital structure and methodological developments.

In the downturn and stress scenarios, effects 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) are simulated, assuming negative economic development scenarios of varying severity. The effects of a severe global recession emanating from the eurozone are depicted in the stress scenario. In both scenarios, KfW Group currently assumes an overall increase in credit risk (counterparty and migration risks) 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 expected capital requirements.

Further stress tests are regularly carried out in addition to the economic scenarios to examine the resilience of KfW Group's economic and normative risk-bearing capacity. In addition to the sensitivity analyses and standard stress tests, current potential macroeconomic dangers form the basis for varying scenario stress tests. The focus in 2019 was on scenarios of a crisis of confidence in the EU, flagging economic growth in China, an Iran-Middle East crisis and a possible further deterioration of the global economy. In addition, the concentration and inverse stress tests show how concentration risks and other potential dangers could jeopardise KfW Group's business model. In 2019, they again simulated the potential impact of the planned regulatory changes associated with the finalisation of Basel III on the group's capital ratios.

Types of risk

COUNTERPARTY DEFAULT RISK

KfW Group faces counterparty default risks[1)] 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.

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

Validation and further development processes

[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.

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, corporations, small and medium-sized enterprises (SMEs), start-ups, the self-employed and investment funds. These procedures are based on scorecards[2)] and generally follow a uniform model architecture consisting of a machine rating, checklist, 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. from 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. With the approval of the supervisory authority, the previously enhanced and validated rating procedure for banks was implemented in July 2019. In addition, further developments were initiated as a result of new regulatory requirements (including rating procedures for corporations and countries), the design of which is to be completed by the beginning of 2020.

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 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.

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, haircuts are applied in particular for market price volatility, the costs of realisation and 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 EAD and LGD are also subject to regular validation and further developed as needed, with new regulatory requirements also addressed.

[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.

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 exposures[3)], 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. 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 respon-sible for restructuring.

Information on default risk and default risk concentrations (gross carrying amounts) as of 31 December 2019

		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	167,073	0	0	34,522	0	0
	Rating 5–8	84,117	0	0	28,774	60	0
Non-investment grade	Rating 9–15	29,785	6	0	30,913	1,348	0
Watch list	Rating 16–18	454	259	0	3,546	3,300	0
Default	Rating 19–20	0	0	209	0	0	17,335
Total		**281,429**	**265**	**209**	**97,755**	**4,708**	**17,335**

		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	24,103	0	0	31,909	0	0
	Rating 5–8	9,892	0	0	32,451	11	0
Non-investment grade	Rating 9–15	444	0	0	18,952	91	0
Watch list	Rating 16–18	0	0	0	839	564	0
Default	Rating 19–20	0	0	77	0	0	310
Total		**34,440**	**0**	**77**	**84,151**	**667**	**310**

[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 2018

		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	165,648	0	0	32,677	0	0
	Rating 5–8	83,773	0	0	28,338	15	0
Non-investment grade	Rating 9–15	29,814	144	0	31,203	1,419	0
Watch list	Rating 16–18	581	309	0	3,432	3,011	0
Default	Rating 19–20	0	0	127	0	0	17,159
Total		**279,816**	**453**	**127**	**95,650**	**4,445**	**17,159**

		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	23,234	0	0	34,545	0	0
	Rating 5–8	8,780	16	0	29,042	3	0
Non-investment grade	Rating 9–15	719	20	0	20,637	108	0
Watch list	Rating 16–18	0	0	0	1,198	259	0
Default	Rating 19–20	0	0	91	0	0	211
Total		**32,732**	**35**	**91**	**85,422**	**370**	**211**

[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 2019

	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	281,661	115	0	26
Loans and advances to customers	118,370	16,277	42	15,685
Securities and investments	34,511	77	0	77
Off-balance sheet transactions	85,055	301	0	230
Total	**519,597**	**16,770**	**42**	**16,018**

[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 2018

	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	280,201	88	0	25
Loans and advances to customers	115,904	16,184	120	15,718
Securities and investments	32,851	91	0	90
Off-balance sheet transactions	85,930	206	0	10
Total	**514,885**	**16,568**	**120**	**15,843**

[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. These also include 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. Tangible collateral for financial instruments classified as stage 3 exclusively consists of ship mortgages.

KfW Group did not take possession of any assets previously held as tangible collateral in 2019.

Portfolio structure

The interaction of the risks associated with the individual exposures in KfW Group's loan portfolio[4] 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.

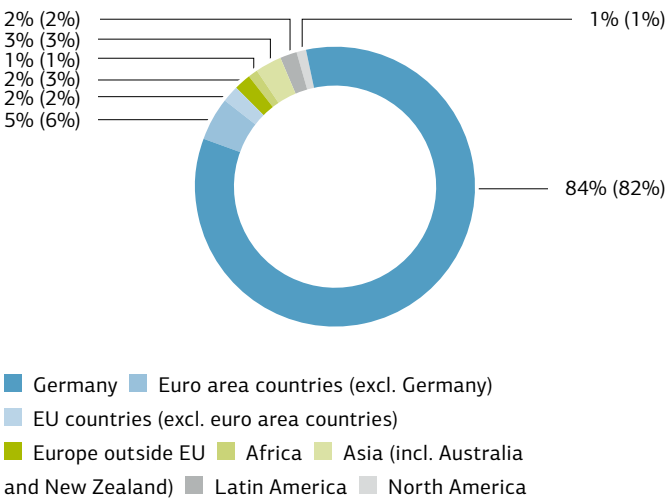
[4] The loan portfolio includes loans as well as securities and investments in performing business. The non-performing portfolio is only included in the presentation of credit quality.

Regions

The increase over the previous year in the euro area's share of the total economic capital requirement to 89% (31 Dec. 2018: 88%) resulted primarily from method adjustments in accounting for collateral. This resulted in a significant increase in economic capital requirements, in Germany in particular – above all in the on-lending business (mainly in energy transition and housing programmes).

Economic capital requirement by region

31 December 2019 (31 Dec. 2018)

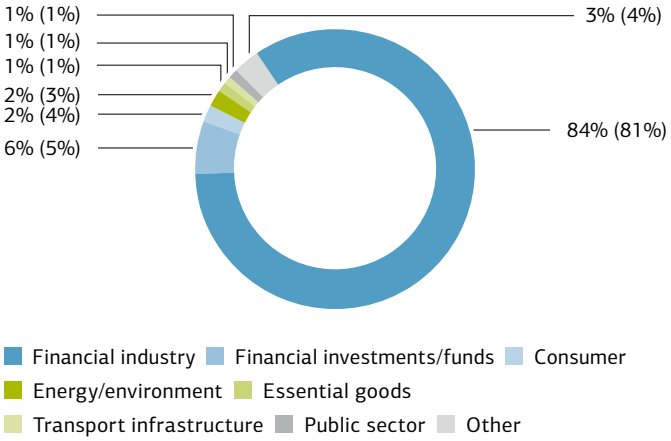


Sectors

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. The financial sector's share of the economic capital requirement increased overall, due primarily to the adjustments to methods described above. This particularly affected banks with large volumes of on-lending business.

Economic capital requirement by sector

31 December 2019 (31 Dec. 2018)

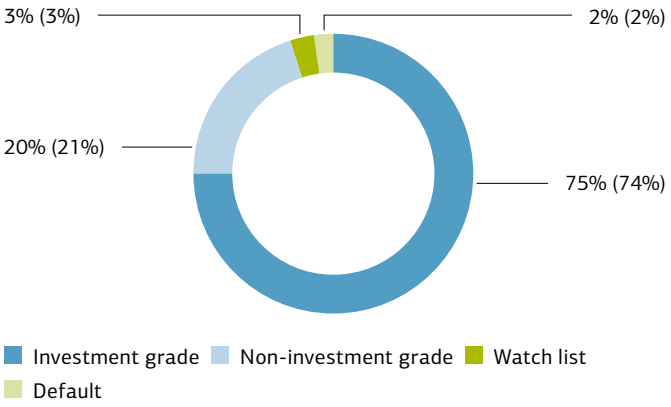


Credit quality

As credit quality is a major factor influencing economic capital requirements, analysing the credit quality structure involves examining the distribution of net exposure[5)] by credit quality category. The higher proportion of investment grade exposure in total net exposure was primarily the result of new business. The watch list proportion is stable at 2.7% (previous year: 2.8%), while the default proportion of 1.7% rose slightly to 1.9%.

Credit quality by net exposure

31 December 2019 (31 Dec. 2018)



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

Securitisations in KfW Group's portfolio
Securitisations had a par value of around EUR 5.9 billion as of 31 December 2019. Accounting for the mark-to-market valuation of the securities reported at fair value and impairments, the portfolio also had a book value (including pro rata interest) of around EUR 5.9 billion. The following tables show 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. 2019	31 Dec. 2018
	%	%
Europe	99.7	99.5
World	0	0
North America	0.3	0.5
Africa	0	0
Asia	0	0

Exposure based on par values

	CLO	RMBS	CMBS	ABCP	Other securitisations	Total as of 31 Dec. 2019	Total as of 31 Dec. 2018
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Investment grade	0	1,052	3	1,807	2,994	5,856	5,381
Non-investment grade	0	0	0	0	67	67	93
Watch list	0	0	0	0	0	0	0
Default	7	0	0	0	0	7	15
	7	**1,052**	**3**	**1,807**	**3,061**	**5,930**	**5,488**

The portfolio volume increased over the volume of 31 December 2018 (nominal EUR +0.4 billion). The increase relates exclusively to the investment grade portfolio. In 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 (newly defined sub-risk type since 1 March 2019);
- foreign currency risk; and
- issuer-related spreads for securities (credit spread risks).

Market price risk within the group required a total of EUR 3.3 billion in economic capital as of 31 December 2019. This is EUR 2.1 billion less than the previous year. The changes are mainly due to the switch to a new risk system on 1 March 2019 and the reduction in the confidence level mentioned above. The switch also involved diversified means of calculating the total ECAP requirement for market price risk across all market risk sub-types, significant changes to methods and extended modelling of options (in particular, the implied floors of lending transactions). KfW Group market price risk breaks down as follows:

Economic capital requirement for market price risk

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Interest risk	2,910	4,273
Interest risk	2,998	3,562
Tenor basis spread risk	209	711
Cross-currency basis spread risk	359	
Interest rate volatility risk	304	-
Currency risk	611	769
Credit spread risk	318	361
Diversification	–868	-
Market price risk	**3,275**	**5,403**

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 12 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 types of 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 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. The capital requirement for interest risk decreased by EUR 1,363 million to EUR 2,910 million as of the reporting date, 31 December 2019.

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). The economic capital requirement for these risks is calculated in the same way as for other types of risk, using historical simulation (see Value at Risk section). With regard to the lending business, interest volatility risk results from "floors at 0" anchored in loan agreements. Interest rate volatility risk is measured as a side effect of the original business activity and limited by means of an ECAP sub-limit. The capital requirement for interest rate volatility risk had risen by EUR 304 million as of 31 December 2019.

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 decreased by EUR 158 million to EUR 611 million as of the reporting date, 31 December 2019.

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 2019 was EUR 318 million. Credit spread risk declined by EUR 43 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 for present value stress testing ("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

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 2019. 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 collateral 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 shows the risk indicators for the scenarios as of 31 December 2019:

KfW liquidity risk indicators

	31 Dec. 2019	31 Dec. 2018
	Indicator	Indicator
Normal case	0.10	0.00
Stress case	0.24	0.13
Worst case (institution-specific)	0.31	0.17
Worst case	0.49	0.42

The internal liquidity risk indicators remained below the internal limit of 1 throughout 2018.

Current funding environment

KfW Group raised a total volume of EUR 80.6 billion on the international capital markets in financial year 2019 (2018: EUR 76.1 billion). It issued a total of 157 individual transactions in 12 different currencies. Around 78% 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 decreased again – to 52% in 2019 (2018: 61%); those denominated in US dollars amounted to 26% (2018: 27%).

The programme volume of the Euro Commercial Paper ("ECP") programme designed for global investors amounted to EUR 70 billion. The volume issued under the ECP programme was lower in 2019 than in the previous year. The outstanding volume here amounted to EUR 33.8 billion at the end of 2019 (year-end 2018: EUR 35.1 billion). The issue volume under the US Commercial Paper ("USCP") programme was also lower year on year in 2019. The USCP programme, with a programme volume of USD 10 billion, is specially designed for the US market. KfW Group uses this programme to cover a large portion of its need for short-term funds in US dollars. The outstanding volume amounted to USD 6.7 billion at the end of 2019 (year-end 2018: USD 6.8 billion).

OPERATIONAL RISK AND BUSINESS CONTINUITY MANAGEMENT

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 of 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 Central Services (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 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.

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. The following types of risk/sub-types of operational risk are also defined and monitored as a rule by specialised second line of defence units: compliance risk, information security risk, payment transaction risk, physical security risk, legal risk, conduct risk, service provider risk (including outsourcing risk), personnel risk, operational risk from adjustment processes, model risk and information technology risk unrelated to information security.

Losses are recorded in KfW Group in an OpRisk events database. 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, operational risks are identified in risk assessments carried out group-wide. Such assessments also examine new activities in the New Products Process ("NPP") as well as changes in operational processes for potential operational risks. 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 using business area-specific OpRisk information dashboards to ensure escalation across all levels up to the Executive Board in the event of non-compliance.

Overall, operational risk within the group required a total of EUR 844 million in economic capital as of 31 December 2019. This is EUR 597 million less than as of 31 December 2018. This reduction in economic capital is due to the adjustment of the confidence level from 2019 onwards.

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.

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 areas. KfW 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 – au-

thorisation 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 of the group, and 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 a 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.

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 objectives with regard to cost, time and achievement of objectives (e.g. new technical requirements, and time constraints arising from parallel projects). Managing project risk is part of project management and takes place in both the project planning and execution stages.

The Central Project Management Office ("CPMO") supports the projects in fulfilling their objectives and achieving their targets. The CPMO provides scaled specifications and support services according to project size. As the central authority for project portfolio management, the CPMO provides the methodological framework for implementation of projects within the group and is responsible for the evaluation and presentation of the risk situation of the project portfolio and the department portfolios for a specified number of projects. Compliance with this framework and these requirements by the aforementioned projects 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 capitalisation 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) requirements[6], in particular those set forth in the KWG and MaRisk, and the market standard COSO model[7].

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

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

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

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

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

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

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

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

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

Compliance

The Executive Board bears the overall responsibility for compliance within the group. The Executive Board delegates the associated tasks to the Compliance department. The officers appointed by the Executive Board for the relevant areas of responsibility are located in the Compliance department. These are in particular the group officers for securities compliance, money laundering and fraud prevention (central unit in accordance with Section 25h of the German Banking Act *(Kreditwesengesetz – "KWG")*.

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 as well as measures for the prevention of insider trading, money laundering, terrorism financing and other criminal activities, 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

[6] See Section 25a (1) no. 1 KWG, MaRisk AT 4.3, and Sections 289 (5), 315 (2) no. 5, 324, and 264d HGB.
[7] COSO = Committee of Sponsoring Organizations of the Treadway Commission

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 performance indicators (KPIs) to be developed (e.g. for information security risk, money laundering, fraud, financial sanctions, securities compliance, data protection, etc.) and to establish a risk management cycle based on current management philosophy regarding financial risks (credit risk).

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.

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. Focal points included audits of projects regarding the EU General Data Protection Regulation (GDPR), as well as assessing reporting and payment transactions.

Moreover, Internal Auditing continued to monitor the ongoing development of risk measurement procedures in 2019 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

The following forecast and opportunity report mainly reflects the scope and content of the group forecast and opportunity report published in the group management report. As business sector planning and earnings projections are prepared at KfW Group level, a forecast and opportunity report is not prepared at individual institution level. The following forecast figures therefore relate to KfW Group.

General economic environment and development trends

KfW expects global economic growth to pick up only slightly in 2020, given that global real gross domestic product ("GDP") is projected to increase by 3.1% year on year, following growth of 2.9% in 2019 according to the IMF estimate. Experts forecast divergent development between industrialised nations and developing countries/emerging economies, as defined by the International Monetary Fund ("IMF"). Real GDP in industrialised countries as a whole will probably increase more slowly in 2020 than in 2019. According to the IMF in its October issue of the World Economic Outlook 2019, this trend applies in particular to the US, where the fiscal stimulus is no longer expected to have an expansionary effect, but rather a neutral one, and to Japan, where the effects of the VAT increase will probably weigh on private consumption despite fiscal countermeasures. Developing countries and emerging economies in the aggregate may develop in the opposite direction compared to industrialised nations, large emerging economies such as Brazil, Mexico, Russia and India, in particular, are expected to post higher annual real GDP growth rates than in 2019, while countries such as Turkey and Iran are likely to have overcome their recessions. Annual economic growth in developing countries and emerging economies as a whole for 2020, however, will continue to lag behind the 2011-2018 average of 5.0%.

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

	2019 estimate[1)]	2020 forecast[2)]	2011-2018 average
	in %	in %	in %
Global economy*	2.9	3.1	3.6
Industrialised countries*	1.7	1.5	1.9
Developing countries and emerging economies*	3.7	4.2	5.0

Sources:
1) IMF (2020), World Economic Outlook. An Update to the Key WEO Projections, January 20, 2020
2) Forecasts using the World Economic Outlook Database, October 2019

* 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.

There are certain risks to this baseline scenario according to the IMF, which believes that global real GDP growth may be lower in 2020 due to various developments: (a) a further escalation of trade tensions and the associated increase in political uncertainty; (b) a rise in risk premiums in the financial markets, which is likely to tighten financial conditions, particularly for economies with budget and current account deficits; (c) increased vulnerability to external shocks in countries that have posted increases in private (household and corporate) and public debt; and (d) geopolitical disputes and extreme weather conditions (climate change) that adversely affect productivity growth (e.g., by disrupting supply chains).

For the **euro area**, KfW expects price-adjusted GDP to grow by 1.0% in 2020. The anticipated growth rate will therefore not reach the previous year's level and is also below the average for the period from 2011 to 2018. As regards GDP demand-side components, private consumption is likely to make the largest percentage-point contribution to price-adjusted GDP growth (0.8 percentage points). This forecast is based on the assumption that employment in the euro area will continue to grow in 2020. According to the European Commission, the uncertainty associated with the ongoing trade policy tensions is a factor that will dampen the growth of price-adjusted GDP in 2020. This factor increases the likelihood that growth in gross fixed capital formation will decline and that net exports will not contribute to growth.

In **Germany**, price-adjusted GDP in 2020 is expected to grow by 0.9% compared to the previous year (price and calendar-adjusted GDP 2020: +0.5% year on year). In light of the forecasts for the global economy described above, KfW assumes that net exports will slow price-adjusted GDP growth in 2020.

In contrast, KfW expects consumption and construction investment to make the greatest contributions to growth in 2020 on the expenditure side of price-adjusted GDP. The latter is based on the assumption that the proportion of the working population whose place of work is in Germany will continue to rise in 2020.

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

	2019	2020 forecast	2011-2018 average
	in %	in %	in %
Euro area	1.2	1.0	1.3
Germany	0.6	0.9	1.9
USA	2.3	2.0	2.2

Sources for the table: Eurostat, Destatis, BEA

In KfW's opinion, risks particularly relevant to the euro area and Germany that could lead to lower than expected growth in price-adjusted GDP in 2020 are the following: an escalation of global trade policy tensions, including the possibility of US special tariffs on car and car part imports from the European Union; a disorderly Brexit or new conflicts in the negotiations on long-term relations between the European Union and the UK, which are likely to begin in 2020; and Italy's national debt, which is a permanent source of uncertainty as regards confidence among the financial market participants in the European Monetary Union's and thus also Germany's financial markets.

For 2020 KfW assumes that average money and capital market interest rates will be lower than in 2019 in the euro area and the US particularly in the **financial market environment** given the declining growth rates of real GDP in these regions.

For the euro area, KfW expects the deposit rate of the European Central Bank (ECB) to average –0.60% in 2020. This lower figure compared to 2019 (–0.44%) is projected because, as in the ECB staff projections, the inflation rate – measured by the annual inflation rate of the Harmonised Index of Consumer Prices (HICP) – is expected to be lower than the average for 2019. Such development normally results in central banks moving to a more expansionary monetary policy. Moreover, the environment of low inflation rates, which are not compatible with the ECB's inflation target of "below, but close to, 2%", is likely to lead the ECB, as announced in its "Introductory Statements" to the press conferences on its monetary policy decisions at the end of 2019, to continue net purchases of securities at a monthly rate of EUR 20 billion for as long as necessary. The lower deposit rate, together with the net purchases of securities resumed in November 2019 (which tend to have a dampening effect on interest rates), can be expected to result in lower average EUR swap rates for medium and longer terms in 2020 than in 2019. This assumption is made particularly in view of the fact that market participant expectations of rising key interest rates are likely to remain very limited given the real GDP growth KfW expects for the euro area, which is assumed to be lower than the average for this decade before 2019 (2011-2018). The yield curve (the spread between ten and two-year swap rates) is expected to flatten slightly on average in 2020 according to KfW assumptions.

For the US, KfW expects the US Federal Reserve to make two further key interest rate cuts in 2020 given the anticipated lower real GDP growth compared with 2019. The Federal Reserve's projections show that the members of the Federal Open Market Committee (FOMC) do not expect key rates to change at year-end 2020 from year-end 2019. However, given the decline in real GDP growth assumed for 2020 compared to 2019, KfW – unlike the FOMC members – believes that the average annual inflation rate in the years up to 2022 will not

exceed the Federal Reserve's 2% target, as measured by the annual inflation rate of the core components of the Personal Consumption Expenditures Price Index (core rate of the "PCE" deflator). KfW believes that the yield curve (spread between ten and two-year USD swap rates) is likely to be somewhat steeper on average in 2020 than in 2019 as the two-year swap rates are expected to fall more sharply than the ten-year rates.
The primary upside and downside risks to the above forecasts that were identifiable at the time of writing this report are the outcome of the trade war between the US and China, the results of the US presidential election and the development of the related campaign, and the effects of an agreed, postponed or even cancelled Brexit.

KfW has assessed the impact of Brexit on the various business sectors of KfW Group and developed options for action based on the conservative assumption of a hard Brexit without a transition period.

In particular, the accreditation process for new EU entities of KfW business partners affected by Brexit has been largely completed. The same applies to the contractual negotiations on the structure of framework agreements for OTC derivatives and to the transfer of existing portfolios to these EU entities. As regards central clearing via a central counterparty in the UK, KfW has concluded that it would only be indirectly affected if there were any impact on business partners. Accordingly, even in the unlikely case of a hard Brexit, KfW does not expect any restrictions on its ability to act with respect to its derivatives business and its funding. KfW considers the potential impact on credit risk to be acceptable overall. In KfW's opinion, the group's necessary preparations have progressed so far that major restrictions on the business sectors are not to be expected.

New business projections

Overview

As the central control variable for its net assets, KfW Group projects new business volume of EUR 77.0 billion for 2020 – close to the 2019 level. This forecast reflects the continuation of the growth trend in the Promotion of developing countries and emerging economies and Export and project finance business sectors, and the stabilisation of the commitment volume for promotion of the German economy in the low-interest environment compared to the past few years. The commitment volume in the business sector Financial markets is expected to decline significantly from 2019 due to the focus on green bonds.

Domestic business

The business sector **Mittelstandsbank & Private Kunden (SME Bank & Private Clients)** is divided by client group into two segments: SME Bank and Private Clients. The SME Bank business segment expects demand for commercial financing to decline in 2020 due to the deteriorating economic outlook and the persistent low interest rates.
The Private Clients business segment expects demand for housing-related financing to remain comparable to that of previous years. The main reasons are as follows: (1) low interest rates and rising incomes favour investment in residential property; (2) climate protection and energy transition are boosting demand in the Energy-efficient Construction and Refurbishment housing programmes; (3) demographic trends require increasing investment in needs-based housing development; and (4) the affordable housing crisis entails further funding potential.
In view of the sustained high demand for the educational funding anchored in the segment, Private Clients expects such promotion to continue at its existing level.
The main challenge in the prolonged low interest environment is in passing on the negative funding rates to the financing partners in the on-lending scheme to ensure that promotional loans remain attractive. The reorganisation of promotion for energy-efficient residential and non-residential buildings also requires further systematic development of the promotional offering. Moreover, digitalisation of promotional business increasingly requires a high level of standardisation and machine readability of promotional products and processes in order to enable the digital provision of promotional information/services on relevant platforms and portals. The Mittelstandsbank & Private Kunden (SME Bank & Private Clients) business sector plans a total commitment volume of EUR 35.5 billion for 2020.

In the Municipal and Social Infrastructure segment of the **business sector Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients)**, the strained budget and debt situation of some municipalities, combined with limited capacities in the construction industry, continues to restrict their investment opportunities. Overall, demand for promotional funds is expected to remain stable, particularly in the context of the digitalisation needed in municipalities.
Individual financing with financing partners in Germany and Europe as well as global funding of promotional institutions of the German federal states will likely continue to be characterised by a sound refinancing situation at partner banks and the current low interest rates. There is lively demand for global loans to promote German small and medium-sized enterprises (SMEs) in their leasing investments, with only selective demand for global loan financing expected in other European countries. Moderate demand is currently projected for the refinancing of export loans, which will likely be influenced by major projects in the German export industry.
The persistent low-interest environment is clearly the greatest challenge in 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.
The business sector plans to continue its promotion in 2020 with a new business volume of EUR 10 billion. Growth impetus is expected to come from measures implemented under the future investment programme designed to counter the effects of an imminent economic slowdown.

The **KfW Capital subsidiary** expects a commitment volume of EUR 230 million in financial year 2020. The achievement of the projected volume could be hampered by an economic downturn and an accompanying decline in demand for venture capital.

Financial markets

The business sector **Financial markets** ended its capital market-based promotional activities for micro, small and medium-sized enterprises as of 31 December 2019.

The business sector is planning new business in the amount of EUR 0.4 billion in the green bond portfolio for financial year 2020. The green bond portfolio to fund suitable environmental and climate protection projects has a target volume of up to EUR 2 billion, of which 80% (EUR 1.6 billion) had already been invested by 30 December 2019.

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. The sector continues to face challenges such as economic sanctions in markets such as Russia. In addition to potential protectionist efforts, geopolitical risks (conflicts between the US and Iran, the US and North Korea, the US and China, Russia and Ukraine, the UK and the EU, and the situation in Syria) can adversely affect world trade and thus financing opportunities. Overall, KfW sees sufficient potential for German and European exporters and enterprises that invest in their competitiveness, on the basis of which financing approaches for the Export and project finance business sector can be derived.

There is additional potential for new business, particularly in technological trends such as broadband and smart infrastructure. Further potential can be found in established sectors, finance arranging activities, earlier entry into complex projects and major underwritings and syndications.

The Export and project finance business sector expects a total commitment volume of EUR 19 billion for 2020.

The **Promotion of developing countries and emerging economies** business sector encompasses the business activities of KfW Development Bank and DEG.

The **KfW Development Bank** business area is expected to experience dynamic business growth to continue 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 2020. 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. Given the ongoing displacement and migration trends, refugee aid and reducing causes of displacement are also high on the political agenda of German and European development cooperation. 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.

Official Development Assistance (ODA) budget funds for development cooperation and international climate finance from both the Federal Government’s budget and the European Commission continue to increase. The BMZ focuses on alleviating poverty, securing food supply, education and good governance, in addition to climate and environmental protection, refugee aid and reducing the causes of displacement. The regional focus is primarily on Africa and the Middle East.

In connection with the refugee and crisis context, the Sustainable Development Goals (SDGs) and the Paris Agreement on climate change, the European Commission has developed an “EU External Investment Plan”. At the same time, the European Commission and the member states are developing a range of promotional instruments for European development cooperation (the Neighbourhood, Development and International Cooperation Instrument of the Multiannual Financial Framework/MFF 2021-2027). 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.

The quality requirements for development cooperation are also increasing, coupled with high demands for transparency and information from policymakers and the public regarding the results, effects and risks of development cooperation.

Against the backdrop of planned projects of the German Federal Government and international institutions, KfW Development Bank expects a new business volume of EUR 9.8 billion for 2020.

Funding projections

KfW issues bonds with maturities of up to 30 years to fund its promotional activities worldwide and is assessed by rating agencies as having excellent credit quality (triple A rating) thanks to the explicit direct guarantee of the Federal Government. 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 account for the highest share of total volume. Further diversification takes place in various products depending on the market.

Long-term funding via the capital markets of approximately EUR 75 billion is projected for 2020, which is slightly below the previous year's funding volume (EUR 81 billion).

Earnings projections

In the current group **earnings projections** for 2020, KfW expects Consolidated profit (before IFRS effects) of approximately EUR 0.8 billion based on anticipated macroeconomic conditions. The expected result remains below the strategic objective of EUR 1 billion. Net interest income (before promotional expense) is expected to be at the level of 2019. Total net interest income is likely to remain adversely affected in 2020 by the ongoing low-interest environment. KfW expects that the income generated by return on equity, in particular, will continue to decline. The aim is to largely offset this decline with additional income from interest margins. Opportunities and risks for consolidated profit may arise primarily for the treasury result from deviating market conditions in conjunction with KfW's positioning.
KfW plans to keep net commission income for the budget period at the level achieved in 2019.

Administrative expense projections for 2020 are based on the Delta cost-cutting project requirements. KfW expects group costs to grow to around EUR 1.4 billion in comparison to 2019. Strategic projects, such as KfW Development Bank's growth case and the further development of KfW IPEX-Bank, are the main reason for the expected increase in costs. Although these put pressure on Administrative expense, they will generate higher income in the medium to long term, and are therefore not out of line with the Delta project. The expected cost-income ratio (CIR) before promotional expense is budgeted at 48% for 2020. The macroeconomic scenario on which the projections are based envisages an increase in risk provisions, with the projected standard risk costs unlikely to be fully utilised.
KfW expects promotional expense of EUR 0.3 billion in 2020 (2019: EUR 0.2 billion), although implementation depends on 2020 market conditions.

Overall conclusion

In view of the above-mentioned macroeconomic conditions and the challenges presented by the persistent low-interest environment, KfW expects new business volume of EUR 77.0 billion at the level of 2019 and a related consolidated profit of EUR 0.8 billion for 2020.

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 statement

Information on the "Summarised non-financial statement of KfW as the parent company and of KfW Group" can be found in the standard report of the 2019 Sustainability report. The report adheres to the Global Reporting Initiative (GRI) standards and can soon be accessed online at https://www.kfw.de/PDF/Download-Center/Konzernthemen/Nachhaltigkeit/englisch/Nachhaltigkeits-bericht-2019_EN.pdf

KfW Financial statements 2019

Annual financial statements

Statement of financial position of KfW as of 31 December 2019

Assets

	see note no.	31 Dec. 2019				31 Dec. 2018
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Cash reserves						
a) Cash in hand				0		0
b) Balances with central banks				28,195		17,464
of which: with Deutsche Bundesbank		*28,195*				*(17,464)*
					28,195	**17,464**
Loans and advances to banks	(2)					
a) Due on demand				4,794		7,361
b) Other loans and receivables				304,702		302,005
					309,496	**309,366**
Loans and advances to customers	(3)				**101,923**	**100,060**
of which: secured with mortgages		*0*				0
of which: Municipal loans		*61,486*				*(62,597)*
Bonds and other fixed-income securities	(4), (9)					
a) Money market paper						
aa) Of public sector issuers			0			0
of which: eligible as collateral with Deutsche Bundesbank		*0*				*(0)*
ab) Of other issuers			1,808	1,808		1,643
of which: eligible as collateral with Deutsche Bundesbank		*0*				*(0)*
b) Bonds and debentures						
ba) Of public sector issuers			4,903			5,739
of which: eligible as collateral with Deutsche Bundesbank		*4,652*				*(5,495)*
bb) Of other issuers			27,172	32,075		25,144
of which: eligible as collateral with Deutsche Bundesbank		*21,882*				*(20,203)*
c) KfW´s own bond issues				6,150		6,021
Nominal amount		6,759				*(6,564)*
					40,033	**38,547**

Assets

	see note no.	31 Dec. 2019				31 Dec. 2018
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Equity investments	(5), (7), (9)				**978**	**1,080**
of which: in banks		*35*				*(35)*
of which: in financial services institutions		*0*				*(0)*
Shares in affiliated companies	(6), (7), (9)				**3,528**	**3,306**
of which: in banks		*429*				*(429)*
of which: in financial services institutions		*0*				*(0)*
Assets held in trust	(8)				**16,611**	**16,578**
of which: loans held in trust		*11,229*				*(11,747)*
Intangible assets	(9)					
Concessions, industrial property rights and similiar rights				83		109
					83	**109**
Property, plant and equipment	(9)				**873**	**879**
Other assets	(10)				**2,555**	**654**
Deferred charges	(11)				**1,692**	**1,565**
Special loss account consisting of provisions under Article 17 (4) of the D-Mark Balance Sheet Act					**26**	**26**
Total assets					**505,991**	**489,634**

Liabilities and equity

	see note no.	31 Dec. 2019				31 Dec. 2018
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Liabilities to banks	(12)					
a) Due on demand				9,069		5,117
b) With agreed terms or periods of notice				7,877		5,222
					16,946	**10,340**
Liabilities to customers	(13)					
Other liabilities						
a) Due on demand			557			854
b) With agreed terms or periods of notice			9,004	9,561		10,857
					9,561	**11,711**
Certificated liabilities	(14)					
Bonds and notes				430,394		419,370
					430,394	**419,370**
Liabilities held in trust	(15)				**16,611**	**16,578**
of which: Loans held in trust		*11,229*				*(11,747)*
Other liabilities					**84**	**752**
Deferred income	(16)				**3,022**	**2,871**
Provisions	(17)					
a) Provisions for pensions and similar obligations				1,520		1,356
b) Other provisions				1,020		1,104
					2,540	**2,460**
Obligatory charges under the D-Mark Balance Sheet Act					**0**	**0**
Fund for general banking risks					**600**	**600**

Liabilities and equity

	see note no.	31 Dec. 2019				31 Dec. 2018
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Equity	(18)					
a) Called in capital						
Subscribed capital			3,750			3,750
less uncalled outstanding contributions			–450	3,300		(450)
b) Capital reserve				8,447		8,447
c) Reserve from the ERP Special Fund				1,191		1,191
d) Retained earnings						
da) Statutory reserve under Article 10 (2) of the KfW Law			1,875			1,875
db) Special reserve under Article 10 (3) of the KfW Law			11,372			10,092
dc) Special reserve under Article 17 (4) of the D-Mark Balance Sheet Act			48	13,295		48
					26,232	**24,952**
Total liabilities and equity					**505,991**	**489,634**
Contingent liabilities	(19)					
On guarantees				671		694
					671	**694**
Other commitments	(20)					
Irrevocable loan commitments				77,337		76,691
					77,337	**76,691**

Income Statement of KfW

for the period from 1 January - 31 December 2019

	see note no.	2019				2018
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Interest income from						
a) Lending and money-market transactions	(21)	5,877				6,284
Less negative interest from lending and money-market transactions		–234	5,642			–196
b) Fixed-income securities and bonds		49				41
Less negative interest from fixed-income securities and bonds		–14	35			0
				5,678		6,129
Interest expense	(21)	3,972				4,457
Less positive interest from the banking business		–144	3,828			–89
				3,828		4,368
					1,850	1,761
Current income from	(22)					
a) Shares and other non-fixed income securities				0		2
b) Equity investments				38		48
c) Shares in affiliated companies				41		0
					80	49
Income from profit pooling, profit and loss transfer and partial profit transfer agreements					**19**	18
Commissions income				**563**		437
Commissions expense				**182**		187
					381	251
Other operating income	(23)				**147**	120
General administrative expenses	(24)					
a) Personnel expense						
aa) Salaries and wages			452			422
ab) Social security contributions and expense for pension provision and other employee benefits			106	558		302
of which: for pensions			*43*			*(244)*
b) Other administrative expenses				412		472
					971	1,196
Depreciation, amortisation and impairment of property, plants and equipment and intangible assets	(9)				**77**	88
Other operating expense	(23)				**134**	32

	see note no.	2019				2018
		EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Impairments of receivables and certain securities and additions to provisions for loan losses					**9**	16
Income from reversals of write-downs of equity investments, shares in affiliated companies and securities held as fixed assets					**0**	24
Expense from loss absorption					**0**	2
Result from ordinary activities					**1,287**	889
Taxes on income					**5**	4
Other taxes					**1**	1
Profit					**1,280**	884
Allocation to retained earnings						
to the special reserve under Article 10 (3) of the KfW Law	(18)		–1,280			–884
				–1,280		–884
Net retained profits					**0**	0

Notes

KfW is a public law institution with registered office in Frankfurt am Main.

The financial statements of KfW have been prepared in accordance with the requirements of the German Commercial Code (Handelsgesetzbuch – "HGB"), the German Accounting Regulation for Banks and Financial Services Institutions (Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute – "RechKredV") and the Law Concerning KfW (KfW Law). The special provisions of the D-Mark Balance Sheet Act (D-Mark-Bilanz-Gesetz – "DMBilG") have also been observed.

The KfW statement of financial position and income statement presentation of items was adjusted as follows: Equity was expanded to include the reserves from the ERP Special Fund and the three sub-items in Retained earnings: Statutory reserve under Article 10 (2) KfW Law and Special reserve under Article 10 (3) KfW Law and Special reserve under Section 17 (4) of the D-Mark Balance Sheet Act. Disclosures on items in the statement of financial position which may be provided in either the statement of financial position or the notes are provided in the notes.

1) Accounting policies

Cash in hand, Loans and advances to banks and customers and Other assets have been shown at cost, notional amount or lower fair value. Inflows received from assets held in trust are also reported in Cash in hand. Resultant payment obligations are reported as liabilities to customers. Differences between notional amounts and lower paid out amounts of receivables, which are similar in nature to interest, have been included in Deferred income and recognised over the term through profit or loss in Net interest income. Equity investments and shares in affiliated companies are recognised at cost. In the case of permanent impairments, assets are written down to the lower value.

Interest rate reductions are recognised in the income statement as they arise, at their present value at the time the loan terms and conditions are determined. These transactions are measured applying the parameters of the general promotional loan market the first time they are recorded at fair value. Consequently, these transactions result in interest rates below the market rate, which has a negative impact on KfW's earnings position.

The difference that normally results upon loan commitment – the present value of the nominal scheduled interest rate reductions during the first fixed interest rate period – is recognised in profit or loss with a negative impact on Interest expense and accounted for as an adjusting item in Loans and advances under the statement of financial position items Loans and advances to banks or Loans and advances to customers. 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 immediately 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 rec-ognised on the assets side.

The securities held as a liquidity reserve are valued strictly at the lower of cost or market (*strenges Niederstwertprinzip*), where they are not hedged. For securities held as fixed assets, the modified lower of cost or market principle (*gemildertes Niederstwertprinzip*) has generally been applied. In some cases, hedge accounting is applied for securities and their interest hedges (primarily interest rate swaps) in accordance with Section 254 HGB. No securities have been allocated to the trading book. Reversals of impairment losses have been accounted for in accordance with the statutory requirements. Structured securities with embedded derivatives are accounted for as one unit and are valued strictly at the lower of cost or market value.

Property, plant and equipment and intangible assets are reported at cost, reduced by straight line depreciation/amortisation over their expected useful life. Impairment is recognised as required. Minor fixed-assets items are combined to form a collec-tive item and are depreciated/amortised over a period of five years using the straight-line method. The bank opted not to recognise internally generated intangible fixed assets.

Liabilities are recognised at their settlement value; differences between agreed higher repayment amount and issue amount are recognised in the item Deferred charges. Zero-coupon bonds issued are recognised at their current redemption amount.

Provisions for pensions and similar obligations are valued in accordance with actuarial principles on the basis of Heubeck AG's 2018 G actuarial tables. The projected unit credit method with the following parameters is applied to KfW's calculations for all active staff members.

	31 Dec. 2019
Actuarial discount rate (10-year average interest rate)	2.71%
Rate of salary increases (depending on pay scale)	2.20%
Rate of pension increases (depending on pension scheme)	1.00% to 2.50%
Rate of staff turnover	1.50%

The effects from discounting of pension provisions were reported in Net other operating income for the first time in 2019. In prior years they were reported in Administrative expense.

Other provisions are reported in the amount of the estimated expenditure required to settle the obligation as dictated by prudent business judgement, taking future price/cost increases into account. Provisions with a remaining life of more than one year are discounted at the market interest rate published by the Deutsche Bundesbank.

Risks, primarily for lending business as a result of the structure of KfW's business, were sufficiently addressed through valuation allowances and provisions. KfW distinguishes between significant receivables (non-retail, volume from each individual borrower of EUR 1 million or more) and non-significant receivables (retail). For significant receivables, an individual assessment of credit exposure regarding expected cashflows is undertaken when there are indications of impairment. The calculation takes into account the scope and value of the collateral as well as the political risk. For non-performing loans, interest income is generally accrued based on the probability of collection. For non-significant receivables with indications of impairment, a general risk provision (specific valuation allowance - retail) is created based on homogeneous sub-portfolios.

The automatically determined portfolio valuation allowance includes the expected basic loss resulting from the portfolio valuation model for all receivables (non-retail and retail) without indicators of impairment. These are calculated based on the changes in credit quality since initial recognition, either in the amount of the one-year expected loss or, if there has been significant increase in credit risk since initial recognition, in the amount of the expected loss over its lifetime.

Additions and reversals are recognised net in the item Impairment of receivables and certain securities and additions to provisions for loan losses or Income from the reversals of impairment losses on receivables and certain securities and reversals of provisions for loan losses. The same applies to unrealised and realised results from equity investments, shares in affiliated companies and securities treated as fixed assets. The possibility of netting in the income statement in accordance with Section 340c (2) and Section 340f (3) HGB has been utilised.

The assets and debts in foreign currencies and the spot transactions not completed on the reporting date have been converted into euros at the average spot exchange rate. The bank applies the principal of special cover in accordance with Section 340h HGB in conjunction with Section 256a HGB.

The valuation of interest-related transactions in the banking book *(Refinanzierungsverbund)* follows the management of interest rate fluctuation risk at KfW. The principle of prudence is applied by recognising a provision for anticipated losses from onerous contracts in accordance with Section 340a in conjunction with Section 249 (1) sentence 1, 2nd alternative HGB for any excess obligations resulting from the valuation of the interest-related banking book. The requirements of the statement of the Banking Committee of the German Institute of Auditors (*Institut der Wirtschaftsprüfer – "IDW"*) on the loss-free valuation of the banking book ("*BFA 3*") are taken into account. To determine any excess obligation, KfW calculates the net value of all discounted future profits or losses of the banking book for each period. In addition to net interest and relevant commission income, this includes the associated administrative costs and risk costs in the amount of expected losses. No provision for contingent losses was required during the reporting year.

Negative interest incurred as a result of the persisting low interest rate environment is reported in a separate column under Interest income and Interest expense.

Notes to the assets

2) Loans and advances to banks

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
This item includes		
Loans and advances		
To affiliated companies	21,327	21,583
To companies in which KfW holds a stake	0	0
Without underwriting borne by the on-lending bank	1,255	1,349
Subordinated loans	1,020	1,460
Due		
On demand	4,794	7,361
Within 3 months	19,977	18,790
Between 3 months and 1 year	33,731	32,958
Between 1 year and 5 years	138,404	134,071
In more than 5 years	109,601	113,120
Accrued interest	2,989	3,066
Total	**309,496**	**309,366**

An adjusting item in the amount of EUR 914 million (2018: EUR 1,030 million) is reported under Loans and advances to banks due to interest rates being below the market rate for promotional loans disbursed with additional promotional support in the form of interest rate reductions impacting KfW's earnings.

3) Loans and advances to customers

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
This item includes		
Loans and advances		
To affiliated companies	284	212
To companies in which KfW holds a stake	0	0
Subordinated loans	1,584	1,859
Due		
With no fixed maturity	11,413	11,413
Within 3 months	2,893	3,649
Between 3 months and 1 year	8,753	5,998
Between 1 year and 5 years	39,634	38,618
In more than 5 years	38,533	40,098
Accrued interest	697	285
Total	**101,923**	**100,060**

An adjusting item in the amount of EUR 64 million (2018: EUR 84 million) is reported under Loans and advances to customers due to interest rates being below the market rate for promotional loans disbursed with additional promotional support in the form of interest rate reductions impacting KfW's earnings.

4) Bonds and other fixed-income securities

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Due within the following year		
Money market paper, bonds and notes	5,446	6,304
Notional amount	*5,414*	*6,274*
Own bond issues	2,259	138
Notional amount	*2,258*	*136*
Total	**7,705**	**6,442**
Notional amount	*7,672*	*6,410*
Listed securities	37,896	36,426
Unlisted securities	2,136	2,121
Marketable securities	**40,033**	**38,547**
Subordinated assets	474	501
Repurchase agreements	211	125

5) Equity investments

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Listed securities	73	62
Unlisted securities	48	49
Marketable securities	**121**	**111**

6) Shares in affiliated companies

As in 2018, this item does not contain any listed securities.

7) Disclosures on shareholdings

	Name and domicile of company	Share held	Equity	Profit/loss for the year
		in %	EUR in thousands	EUR in thousands
1	DEG Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne[1)]	100.0	2,472,195	–54,571
2	KfW Beteiligungsholding GmbH, Bonn[1)]	100.0	1,995,503	–220,412
3	Interkonnektor GmbH, Frankfurt am Main[1)]	100.0	81,874	–1,810
4	KfW Capital GmbH & Co. KG, Frankfurt am Main[1)]	100.0	219,526	0
5	tbg Technologie-Beteiligungsgesellschaft mbH, Bonn[1)]	100.0	66,099	6,082
6	Finanzierungs- und Beratungsgesellschaft mbH, Berlin[1)]	100.0	4,896	–105
7	AF Eigenkapitalfonds für deutschen Mittelstand GmbH & Co. KG, Munich[2)]	47.5	95,389	4,213
8	Deutsche Energie-Agentur GmbH (dena), Berlin[2)]	26.0	5,178	38
9	Berliner Energieagentur GmbH, Berlin[2)]	25.0	6,665	607
10	eCapital Technologies Fonds II GmbH & Co. KG, Münster[2)]	24.8	13,031	–545

	Name and domicile of company where KfW holds at least 5% of voting rights	Share of voting rights	Equity	Profit/loss for the year
		in %	EUR in thousands	EUR in thousands
1	ProCredit Holding AG & Co. KGaA, Frankfurt am Main[3)]	13.2	743,634	54,479
2	Access Microfinance Holding AG, Berlin[3)]	13.1	66,743	1,384
3	Finca Microfinance Holding Company LLC, Washington DC, USA[3)]	8.9	210,092	6,032
4	AB Microfinance Bank Nigeria Ltd., Lagos, Nigeria[2)]	5.9	11,412	351

[1)] Preliminary financial statements 31 Dec. 2019
[2)] Most recent available financial statements 31 Dec. 2018
[3)] Most recent available consolidated financial statements 31 Dec. 2018

The exemptions of Section 286 (3) No. 1 HGB were applied. The list of shareholdings shows significant equity investments with a capital share greater than 20%. The other equity investments are of minor importance.

8) Assets held in trust

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Loans and advances to banks	821	891
Loans and advances to customers	10,442	10,889
Equity Investments	5,348	4,798
Total	**16,611**	**16,578**

9) Fixed assets

Statement of changes in fixed assets as of 31. Dec 2019

EUR in thousands		Equity invest-ments[1)]	Shares in affiliated companies[1)]	Securities held as fixed assets[1)]	Intangible assets	Property, plant and equipment[4)]	Total
Acquisition costs/production costs as of 1 Jan. 2019[3)]					208,185	1,280,365	
Additions 2019	Changes[2)]		222,101	1,253,393	4,420	40,467	
Disposals 2019		102,248			2,288	15,534	
Transfers 2019					0	0	
Acquisition costs/production costs as of 31 Dec. 2019					210,317	1,305,298	
Accumulated depreciation/ amortisation as of 1 Jan. 2019					99,289	401,030	
Depreciation/amortisation 2019[5)]					30,574	46,271	
Reversal of impairments 2019					0	0	
Depreciation/amortisation of additions 2019					597	15,822	
Depreciation/amortisation of disposals 2019					2,288	14,729	
Depreciation/amortisation of transfers 2019					0	0	
Accumulated depreciation/ amortisation as of 31 Dec. 2019					127,575	432,572	
Net carrying amount 31 Dec. 2019		978,102	3,527,771	32,030,654	82,742	872,726	**37,491,994**
Net carrying amount 31 Dec. 2018		1,080,350	3,305,669	30,777,261	108,896	879,335	**36,151,511**

[1)] The bank exercised the option under Section 34 (3) RechKredV to consolidate Securities and investments

[2)] Including price changes

[3)] The simplification under Section 31 (3) of the Introductory Act to the German Commercial Code (*Einführungsgesetz zum Handelsgesetzbuch – EGHGB*) has been applied.

[4)] Of which net carrying amount as of 31 December 2019:

– Total amount of land and buildings used for the bank's activities EUR 799,506 thousand

– Total amount of office furniture and equipment EUR 73,220 thousand

[5)] No impairment losses were recognised in 2019.

Bonds and other fixed-income securities, as well as shares and other non-fixed income securities, intended for permanent use for business activities and therefore usually held until maturity, have been included with the securities held as fixed assets. They are presented separately from current assets and are valued according to the modified lower of cost or market value principle.

The carrying amount of the marketable securities in fixed assets not valued strictly at the lower of cost or market value was EUR 32,031 million as of 31 December 2019. This includes securities with a carrying amount of EUR 19,740 million, for which an impairment loss of EUR 54 million was not recognised, as they are going to be held to maturity.

10) Other assets

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Main items:		
Adjusting item from the currency translation of derivatives	1,887	0
Amount receivable from the Federal Agency for Special Tasks associated with Unification	626	612

Under Other assets, KfW reports a currency adjustment item in the amount of EUR 1,887 million (2018: EUR 630 million under Other liabilities). This resulted from the foreign currency valuation of swap transactions concluded to hedge foreign currency risks from receivables and liabilities. The foreign currency derivatives were used in the context of management of the foreign currency exposure.

The amount receivable from the Federal Agency for Special Tasks associated with Unification is reported due to the transfer to KfW of the insurance business of the State Insurance Company of the GDR in liquidation (*Staatliche Versicherung der DDR in Abwicklung – "SinA"*). Actuarial provisions have thus been set up in the same amount.

11) Deferred charges

The line item Deferred charges includes the differences between the repayment amount and the lower issuing amount for liabilities in the amount of EUR 522 million (2018: EUR 666 million).

Notes to the liabilities and equity

12) Liabilities to banks

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
The item includes:		
Liabilities to		
Affiliated companies	443	45
Companies in which KfW holds a stake	0	0
Due		
On demand	9,069	5,117
Within 3 months	4,525	1,630
Between 3 months and 1 year	62	204
Between 1 year and 5 years	233	202
In more than 5 years	1,029	1,075
Accrued interest	2,028	2,111
Total	**16,946**	**10,340**

13) Liabilities to customers

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
The item includes:		
Liabilities to		
Affiliated companies	101	100
Companies in which KfW holds a stake	1	0
Due		
On demand	557	853
Within 3 months	3,710	2,769
Between 3 months and 1 year	353	2,698
Between 1 year and 5 years	809	967
In more than 5 years	4,063	4,314
Accrued interest	69	110
Total	**9,561**	**11,711**

14) Certificated liabilities

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
The sub-item – Bonds and notes – includes		
Liabilities to		
Affiliated companies	404	1,542
Companies in which KfW holds a stake	0	0
Due within the following year	112,215	110,548

15) Liabilities held in trust

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Liabilities to banks	0	0
Liabilities to customers	16,611	16,578
Total	**16,611**	**16,578**

16) Deferred income

Deferred income includes discounts on receivables totalling EUR 177 million (2018: EUR 241 million).

17) Provisions

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Main items:		
Provisions for pensions and similar obligations	1,520	1,356
Actuarial provisions in connection with the transfer to KfW of the insurance business of SinA	626	612
Early retirement	84	93
Provisions for variable compensation components incl. social security payments	61	57
Retransfer obligation with respect to land	53	53
Provisions for credit risks	43	44
Irrevocable loan committments below market rate	24	59

There was a difference of EUR 216 million between the discounting of provisions for pensions at the average market rate of the past ten years and the discounting of this item at the average market rate of the past seven years. This difference is excluded from distribution.

An adjusting item in the amount of EUR 24 million was reported in financial year 2019 under Other provisions due to interest rates being below the market rate for promotional loans irrevocably committed with additional promotional support in the form of interest rate reductions with an impact on KfW's earnings position.

18) Equity

	31 Dec. 2018	Net profit for the financial year	Other changes	31 Dec. 2019
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
KfW's subscribed capital	3,750	0	0	3,750
Uncalled outstanding contributions	–450	0	0	–450
Capital reserve	8,447	0	0	8,447
Reserve from the ERP Special Fund	1,191	0	0	1,191
Retained earnings				
a) Statutory reserve under Article 10 (2) of the KfW Law	1,875	0	0	1,875
b) Special reserve under Article 10 (3) of the KfW Law	10,092	1,280	0	11,372
c) Special reserve under Section 17 (4) of the D-Mark Balance Sheet Act	48	0	0	48
Equity	**24,952**	**1,280**	**0**	**26,232**

The entire profit for 2019 was allocated to retained earnings. As of year-end 2019, KfW's equity amounted to EUR 26,232 million.

Other required notes to the liabilities and equity

19) Contingent liabilities

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
The item includes:		
Guarantees for export financing	203	158
Promotional loans for federal states	119	81
Municipal loans	90	82
Guarantees for special loans	69	183
Ship and shipyard financing	64	50
Guarantees for aircraft finance	59	34
Guarantees for other financing	67	97
Total	**671**	**694**

The risk of guarantees is mitigated by possibilities for recourse to the principal and is largely based on that entity's credit rating and the value of any collateral. The bank regularly assesses the risk as part of credit risk monitoring. If there are reasons for a probable outflow of funds, the bank recognises individual provisions; general provisions are made for latent risks. Contingent liabilities are presented net of received cash collateral accounted for as liabilities and provisions.

20) Other commitments

Irrevocable loan commitments	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
The item includes:		
Mittelstandsbank & Private Kunden (*SME Bank & Private Clients*)	36,372	40,726
Individualfinanzieurng & öffentliche Kunden (*Customised Finance & Public Clients*)	5,024	6,486
Export and project finance	16,242	14,394
Loans for the Promotion of developing countries and emerging economies	14,075	12,946
Guarantees	371	239
Forward forward agreements	1,055	0
Other loan commitments	4,198	1,900
Total	**77,337**	**76,691**

Irrevocable loan commitments are subject to regular credit risk monitoring. If there are indications that a loss will be incurred from an expected outflow of funds, the bank recognises an individual provision; latent risks are covered through the recognition of portfolio provisions.

Provisions recognised for the interest rate reductions in irrevocable loan commitments granted by KfW in the promotional lending business and negatively impacting its earnings position are deducted.

Notes to the income statement

21) Interest income and Interest expense

The Interest and similar income item comprises EUR 248 million (2018: EUR 196 million) in negative interest from lending and money-market transactions and from fixed-income securities as a result of the persisting low interest rate environment. Of this amount, EUR 122 million (2018: EUR 65 million) is attributable to deposits with the central bank, EUR 76 million (2018: EUR 85 million) to money-market transactions, EUR 31 million (2018: EUR 29 million) to receivables from the Federal Government resulting from the privatisation of Deutsche Telekom AG and Deutsche Post AG.

KfW separately reported negative interest from fixed-income securities in the amount of EUR 14 million under sub-item b) Interest income from fixed-income securities and bonds, for the first time in 2019. This income in the amount of EUR 11 million was reported in the prior year under sub-item a) Interest income from lending and money-market transactions and Interest expense.

The Interest and similar expense from the banking business item comprises EUR 144 million (2018: EUR 89 million) in positive interest. This includes EUR 90 million (2018: EUR 57 million) in positive interest from certificated liabilities and EUR 33 million (2018: EUR 16 million) from money-market transactions.

22) Current income

The distribution of KfW Beteiligungsholding GmbH for financial year 2018 in the amount of EUR 41 million was reported for the first time in 2019 under sub-item c) Current income from shares in affiliated companies. That figure for the past year of EUR 22 million was reported under sub-item b) Current income from equity investments.

23) Other operating income and Other operating expense

In accordance with Sections 277 (5) sentence 2 and 340h HGB, expenditure on and income from currency conversion have been presented as gross figures in Other operating expense (EUR 5 million, 2018: EUR 4 million) and Other operating income (EUR 5 million, 2018: EUR 5 million). Exchange rate-related changes in the value of specific valuation allowances denominated in foreign currencies are also presented in Other operating expense or Other operating income. Other operating income is largely attributable to the fee paid under the agency agreement with KfW IPEX-Bank GmbH of EUR 86 million (2018: EUR 85 million). Other operating expenses includes valuation effects generated by discounting pension provisions in the amount of EUR 119 million.

24) Administrative expense

The salaries of 321 employees in external offices are included in the current Personnel expense.

25) Auditor's fees

KfW has exercised the option under Section 285 No. 17 HGB, and refers to the breakdown of auditor fees in KfW Group's consolidated financial statements.

26) Geographical markets

As KfW does not have any foreign branch offices, the total amounts reported under certain income line items in accordance with Section 34 (2) No. 1 RechKredV were not broken down by region.

Other required notes

27) Assets and liabilities in foreign currencies

	31 Dec. 2019 EUR in millions	31 Dec. 2018 EUR in millions
Assets in foreign currencies	57,481	56,322
Liabilities in foreign currencies	223,060	220,262

28) Other financial commitments

The bank has remaining payment obligations totalling EUR 256 million in connection with equity finance operations, of which EUR 46 million is to associated companies.

Moreover, as of 31 December 2019, it also has remaining payment obligations of EUR 950 million to affiliated companies, primarily to KfW Capital GmbH & Co.KG.

In isolated cases, KfW staff or third parties appointed by KfW take on executive body functions at companies in which KfW holds equity investments or with which it has another relevant creditor relationship. The risks arising therefrom are covered by the directors and officers liability insurance policy of the respective company. Liability risks may arise for KfW in the event that no effective insurance coverage is in place.

29) Derivatives reporting

KfW uses the following forward transactions/derivative products, mainly to hedge interest and exchange rate risks, and other price and credit risks:

1. Interest rate forward transactions/derivative products
   - Interest swaps
   - Interest rate options, swaptions
   - Caps and floors

2. Currency-related forward transactions/derivative products
   - Cross-currency swaps
   - FX swaps
   - Currency forwards
   - Spot FX deals

3. Credit derivatives
   - Single name credit default swaps

The following presentation of derivatives transactions is in accordance with the requirements of Section 285 No. 19 HGB and Section 36 RechKredV. It discloses the positive and negative fair values of the derivatives positions as of 31 December 2019.

All types of contracts are marked to market. In cases where market prices were not available for derivatives instruments, fair values were established by means of market parameters based on generally accepted option price models and present value calculations.

Purchased and written options are presented as Other assets or Other liabilities at the amount paid as premiums.

Volume

	Notional amounts	Notional amounts	Positive fair values	Negative fair values
	31 Dec. 2019	31 Dec. 2018	31 Dec. 2019	31 Dec. 2019
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Contracts with interest risks				
Interest swaps	496,495	460,705	14,369	14,065
Interest options				
thereof purchases	*0*	*0*	*0*	*0*
thereof sales	*0*	*0*	*0*	*0*
Caps and floors[1)]	452	490	3	3
Total	**496,947**	**461,194**	**14,372**	**14,067**
Contracts with currency risks				
Cross-currency swaps	156,057	162,346	7,676	3,714
FX swaps	50,301	40,170	534	215
Currency forwards	179	160	5	5
Spot FX deals	4	0	0	0
Total	**206,542**	**202,676**	**8,215**	**3,935**
Credit derivatives[2)]				
thereof purchases	*0*	*10*	*0*	*0*
thereof sales	*0*	*0*	*0*	*0*
Total	**0**	**10**	**0**	**0**

[1)] Only caps and floors which are traded on a stand-alone basis
[2)] In this case single name credit default swaps

Remaining life

Notional amounts	Interest risks[1]		Currency risks		Credit derivatives[2]	
	31 Dec. 2019	31 Dec. 2018	31 Dec. 2019	31 Dec. 2018	31 Dec. 2019	31 Dec. 2018
	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions	EUR in millions
Due						
Within 3 months	11,533	13,448	48,943	32,015	0	0
Between 3 months and 1 year	49,533	40,823	46,201	47,586	0	0
Between 1 year and 5 years	250,074	222,984	83,415	94,161	0	10
In more than 5 years	185,806	183,939	27,983	28,914	0	0
Total	**496,947**	**461,194**	**206,542**	**202,676**	**0**	**10**

[1] Derivatives financial instruments are shown without embedded derivatives
[2] In this case single name credit default swaps

Counterparties

	Notional amounts	Notional amounts	Positive fair values	Negative fair values
	31 Dec. 2019	31 Dec. 2018	31 Dec. 2019	31 Dec. 2019
	EUR in millions	EUR in millions	EUR in millions	EUR in millions
OECD-banks	701,045	661,046	22,587	17,904
Banks outside the OECD	189	441	0	4
Other counterparties	0	138	0	0
Public authorities	2,255	2,255	0	94
Total	**703,488**	**663,880**	**22,587**	**18,002**

30) Hedge accounting within the meaning of Section 254 HGB

The following section describes hedge accounting within the meaning of Sections 254 and 285 No. 23 HGB.

The table below details the volume of securities held as fixed assets and as a liquidity reserve (current assets), which are hedged against interest risks as of the reporting date.

	Carrying amounts	Notional amounts	Fair values
	EUR in millions	EUR in millions	EUR in millions
Securities held as fixed assets			
Bonds and other fixed-income securities	26,075	25,574	26,379
Securities held as liquidity reserves			
Bonds and other fixed-income securities	6,164	6,773	7,361
Total	**32,239**	**32,347**	**33,740**

KfW uses derivatives to hedge open positions only.

The option to apply hedge accounting for economic hedges is exercised with KfW's own holdings of securities as designated hedged items. The net hedge presentation method is applied to the effective portion of the hedge.

A portion of the securities held as fixed assets is hedged on a micro-basis against interest risks by designating primarily interest rate swaps as hedges of fixed-income securities.

Thanks to identical terms of the hedged item and hedging instrument, the offsetting effect is demonstrated both prospectively and retrospectively using the critical terms match method.

Through the use of the modified lower of cost or fair value principle for the fixed assets, only permanent impairment losses are recognised in the income statement.

The fixed-income securities held as a liquidity reserve are also hedged against interest risks using micro hedges (primarily interest rate swaps). Any expense related to the ineffective portion of the hedge is recognised in the income statement. In addition, hedging relationships are designated as part of the repurchase of own issues, with matching certificated liabilities as hedging instruments.

Due to the negative correlation of fair value changes and the similar risks of the hedged item and the hedging instrument, changes in fair value and in cash flows of hedged items and hedging instruments largely offset one another as of the reporting date. Considering the long-term designation of the hedging relationships, the offsetting effects in relation to the hedged risk are expected to continue almost fully until the hedging relationships mature.

In addition to hedging relationships pursuant to Section 254 HGB, derivative financial instruments used to hedge interest risks in the banking book and the interest-bearing hedged items are included in asset liability management. KfW manages the interest margin or fair value of all interest-bearing transactions in the banking book as a whole. Hedging relationships are also included in the loss-free valuation of the banking book (BFA 3).

31) Loans in the name of third parties and for third party account

Loans in the name of third parties and for third party account totalled EUR 10,673 million as of 31 December 2019 (2018: EUR 10,305 million).

32) Personnel

The average number of employees can be broken down as follows:

	2019	2018
Female employees	2,568	2,434
Male employees	2,765	2,638
Staff not covered by collective agreements	*3,669*	*3,505*
Staff covered by collective agreements	*1,664*	*1,567*
Total	**5,333**	**5,072**

33) Transactions with related parties and affiliated companies

The conditions and prices between KfW and related parties and affiliated companies reflect market conditions or are concluded in accordance with KfW's general conditions for its loan programmes open to the general public.

34) Remuneration and loans to members of the Executive Board and the Board of Supervisory Directors

Annual remuneration 2019	Salary EUR in thousands	Variable remuneration EUR in thousands	Other remuneration[2)] EUR in thousands	Total EUR in thousands
Dr Günther Bräunig (Chief Executive Officer)	772.5	0.0	30.7	803.2
Dr Ingrid Hengster	555.7	0.0	37.0	592.7
Melanie Kehr[1)]	436.8	0.0	29.5	466.3
Bernd Loewen	613.2	0.0	40.1	653.3
Prof. Dr Joachim Nagel	535.0	0.0	27.1	562.1
Dr Stefan Peiß	543.1	0.0	22.5	565.6
Total	**3,456.3**	**0.0**	**186.9**	**3,643.2**

[1)] From 1 March 2019

[2)] Other compensation mostly comprises the use of company cars, insurance premiums and the taxes on these amounts.

Compensation to members of the Board of Supervisory Directors totalled EUR 209 thousand (including travel expenses). This amount breaks down as follows:

Compensation for the members of the Board of Supervisory Directors is EUR 5 thousand p.a. and members of the Credit, Executive and Audit Committees receive EUR 0.6 thousand p.a., all paid on a pro-rata basis for memberships that commence or end during the year. Compensation to members of the Federal Government who are members of the Board of Supervisory Directors pursuant to Section 7 (1) No. 2 KfW Law was set at EUR 0 for financial year 2019. Moreover, compensation for the Chair of the Board of KfW Supervisory Directors and his deputies was also set at EUR 0.

Provisions in the amount of EUR 62,984 thousand were set up as of 31 December 2019 for obligations under pension agreements for former members of the Executive Board and their surviving dependents (2018: EUR 61,886 thousand). The regular compensation totalled EUR 4,675 thousand.

There were no loans to members of the Executive Board as of 31 December 2019.

35) Responsibilities of the Executive Board members

Dr Günther Bräunig (Chief Executive Officer)
General Secretariat, Group Development and Economics, Legal, Financial Markets, Human Resources (until 7 April 2019), Internal Auditing and Sustainability

Dr Ingrid Hengster
Domestic Marketing and Digital Channels, Individualfinanzierung & Öffentliche Kunden (Customised Finance & Public Clients), Mittelstandsbank & Privatkunden (SME Bank & Private Clients), New Business Credit Service and Central Services

Melanie Kehr
Information Technology (since 8 April 2019) and Transaction Management (since 8 April 2019)

Bernd Loewen
Accounting, Organisation and Consulting, Information Technology (until 7 April 2019), Portfolio Credit Service (since 8 April 2019) and Human Resources (since 8 April 2019)

Prof. Dr Joachim Nagel
Promotion of Developing Countries and Emerging Economies and Export and Project Finance

Dr Stefan Peiß
Risk Controlling, Credit Risk Management, Portfolio Credit Service (until 7 April 2019), Transaction Management (until 7 April 2019) and Compliance

36) Group affiliation

KfW is included in the consolidated financial statements of KfW Group, Frankfurt am Main, as of 31 December 2019. The consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) and disclosed in German in the electronic Federal Gazette (*Bundesanzeiger*).

37) Events after the end of the financial year

No events of particular significance for the assessment of net assets, financial position and earnings position of KfW occurred after the end of financial year 2019.

38) Mandates held by executive directors or other employees in supervisory boards of large corporations in accordance with Section 267 (3) HGB

Mandates held by Executive Board members

Dr Günther Bräunig (Chief Executive Officer)
Deutsche Post AG, Bonn
Deutsche Telekom AG, Bonn
Deutsche Pfandbriefbank AG, Munich

Dr Ingrid Hengster
Deutsche Bahn AG, Berlin
ThyssenKrupp AG, Essen

Bernd Loewen
DEG - Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne

Prof. Dr Joachim Nagel
DEG - Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne
KfW IPEX-Bank GmbH, Frankfurt am Main
Deutsche Börse AG, Frankfurt am Main

Dr Stefan Peiß
KfW IPEX-Bank GmbH, Frankfurt am Main

Mandates of other employees

Dr Lutz-Christian Funke
IKB – Deutsche Industriebank AG, Düsseldorf

Christian Krämer
ProCredit Holding AG & Co. KGaA, Frankfurt am Main

39) The bank's executive bodies

Board of Supervisory Directors

Peter Altmaier
Federal Minister for Economic Affairs and Energy
Deputy Chair
(1 January 2019 - 31 December 2019)
Chair
(since 1 January 2020)

Olaf Scholz
Federal Minister of Finance
Chair
(1 January 2019 - 31 December 2019)
Deputy Chair
(since 1 January 2020)

Doris Ahnen
Minister of State at the Ministry of Finance of the State of Rhineland-Palatinate
Member appointed by the German Bundesrat

Sören Bartol
Member of the German Bundestag
Member appointed by the German Bundestag

Dr André Berghegger
Member of the German Bundestag
Member appointed by the German Bundestag
(since 1 January 2020)

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

Volker Bouffier
Minister President of the State of Hesse
Member appointed by the German Bundesrat

Ingeborg Esser
Managing Director of the Federal Association of German Housing and Real Estate Companies (GdW)
Representative of the housing industry
(since 1 January 2020)

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

Albert Füracker
State Minister at the Bavarian State Ministry of Finance and for Regional Identity
Member appointed by the German Bundesrat
(since 1 January 2020)

Verena Göppert
Permanent Deputy of the Executive Director of the Association of German Cities
Representative of the municipalities

Olav Gutting
Member of the German Bundestag
Member appointed by the German Bundestag

Dr Louis Hagen
Chief Executive Officer of Münchener Hypothekenbank eG
Representative of the mortgage banks

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

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
Member of the German Bundestag
Member appointed by the German Bundestag

Andreas Ibel
President of the Federal Association of Independent Housing and Real Estate Companies (BFW)
Representative of the housing industry
(until 31 December 2019)

Johannes Kahrs
Member of the German Bundestag
Member appointed by the German Bundestag
(since 1 January 2020)

Bartholomäus Kalb
Former member of the German Bundestag
Member appointed by the German Bundestag
(until 31 December 2019)

Alois Karl
Member of the German Bundestag
Member appointed by the German Bundestag
(since 1 January 2020)

Julia Klöckner
Federal Minister of Food and Agriculture

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

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

Lutz Lienenkämper
Minister of Finance of the
State of North Rhine-Westphalia
Member appointed by the
German Bundesrat
(until 31 December 2019)

Heiko Maas
Federal Minister of Foreign Affairs

Dr Gerd Müller
Federal Minister for Economic
Cooperation and Development

Dr Hans-Walter Peters
President of the Association
of German Banks (BdB)
Representative of the commercial banks

Eckhardt Rehberg
Member of the German Bundestag
Member appointed by the
German Bundestag
(until 31 December 2019)

Dr. Johannes-Jörg Riegler
Former President of the Association
of German Public Banks (VÖB)
Representative of industrial credit

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

Andreas Scheuer
Federal Minister of Transport
and Digital Infrastructure

Helmut Schleweis
President of the German Savings
Banks Association (DSGV)
Representative of the savings banks

Carsten Schneider
Member of the German Bundestag
Member appointed by the
German Bundestag
(until 31 December 2019)

Svenja Schulze
Federal Minister for the Environment, Nature Conservation and Nuclear Safety

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

Peter Strobel
Minister of Finance and European Affairs
of the State of Saarland
Member appointed by the
German Bundesrat

Heike Taubert
Former Deputy Minister President
Former Minister of Finance
of the State of Thuringia
Member appointed by the
German Bundesrat

Dr. Florian Toncar
Member of the German Bundestag
Member appointed by the German
Bundestag
(until 31 March 2020)

Dr. Martin Wansleben
Chief Executive of the Association of
German Chambers of Commerce
and Industry (DIHK)
Representative of industry

Executive Board

Frankfurt am Main, 25 February 2020

Dr Günther Bräunig
(Chief Executive Officer)

Dr Ingrid Hengster

Melanie Kehr

Bernd Loewen

Prof. Dr Joachim Nagel

Dr Stefan Peiß

Independent auditor's report[1)]

To KfW

Report on the audit of the annual financial statements and of the management report

Opinions

We have audited the annual financial statements of KfW, Frankfurt am Main, which comprise the statement of financial position as at December 31, 2019, the income statement for the fiscal year from January 1, 2019 to December 31, 2019, and notes to the financial statements, the recognition and measurement policies presented therein. In addition, we have audited the management report of KfW for the fiscal year from January 1, 2019 to December 31, 2019. In accordance with the German legal requirements, we have not audited the content of the declaration of compliance. In accordance with the German legal requirements, we have not audited the content of the sections "Declaration of compliance" and "Non-financial statement" of the management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law applicable to business corporations and give a true and fair view of the assets, liabilities and financial position of the Company as at December 31, 2019 and of its financial performance for the fiscal year from January 1, 2019 to December 31, 2019 in compliance with German legally required accounting principles, and

- the accompanying management report as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the sections "Declaration of compliance" and "Non-financial statement" of the 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 annual financial statements and of the management report.

Basis for the opinions

We conducted our audit of the annual financial statements and of the 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 re-

[1)] Translation of the independent auditor's report issued in German language on the annual financial statements prepared in German language by the Executive Board of KfW, Frankfurt am Main. The German language statements are decisive.

sponsibilities for the audit of the annual financial statements and of the management report" section of our auditor's report. We are independent of the Company in accordance with the requirements of 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 annual financial statements and on the management report.

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 und 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 statement" of the management report and the section "Key figures of KfW" of the Financial Report 2019, which we obtained prior to the date of this auditor's report.

Our opinions on the annual financial statements and on the management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the 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 annual financial statements and the management report

The Executive Board is responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to business corporations, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles. In addition, the Executive Board is responsible for such internal control as they, in accordance with German legally required accounting principles, have determined neces-

sary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the Executive Board is responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the Executive Board is responsible for the preparation of the management report that, as a whole, provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, the Executive Board is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The Board of Supervisory Directors is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor's responsibilities for the audit of the annual financial statements and of the management report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with 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 annual financial statements and this 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 annual financial statements and of the 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 annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by 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 Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles.

- Evaluate the consistency of the management report with the annual financial statements, its conformity with [German] law, and the view of the Company's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the 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.

Eschborn/Frankfurt am Main, 3 March 2020

Ernst & Young GmbH
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Wirtschaftsprüfer
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Wirtschaftsprüfer
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Imprint

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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

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