KfW
Issuer Rating Report

STABLE AAA

Scope's credit view (summary)

KfW's issuer rating is fully aligned with the **AAA sovereign credit rating** of the Federal Republic of Germany reflecting i) the explicit, unconditional, unlimited, statutory, direct and irrevocable guarantee of the Federal Republic of Germany (AAA/Stable) for KfW's obligations; and ii) the mature and very supportive legal framework of the company, stipulated in the Law Concerning KfW (KfW law), which makes changes to KfW's business model or guarantee structure unlikely.

KfW is the largest German government development agency and one of the largest sub-sovereign issuers in Europe. Under the direction of the Federal Finance Ministry and within a mandate set by law, KfW plays a critical role in implementing Germany's economic policy.

KfW's deep integration into German economic policy has been demonstrated in the recent past by the significant measures taken in response to the Covid-19 pandemic and the Russia-Ukraine war. In addition, KfW also plays a significant role in determining Germany's energy policy and in securing its energy supply. KfW and its subsidiaries significantly contribute to tackling the climate crisis at the domestic and international levels.

In the supplementary analysis, we highlight KfW's strong capital metrics and its solid asset quality. In our view, counterparty, market, liquidity and operational risks are managed in a prudent manner, reflecting KfW's extensive investment into risk management and compliance processes in recent years. KfW's profitability is satisfactory and characterised by a sound level of stability. We consider downside risks in 2022 to be low. Higher risks may weigh on performance in the coming years, but we do not expect net losses in 2023 and 2024.

Although funding has significantly increased in recent years, KfW has maintained a strong funding and liquidity profile. Its excellent capital market access is based on a broadly diversified investor base that includes a broad range of currencies. In addition, KfW has achieved a leading role in the area of green bond issuance, which is attracting strong investor interest.

Outlook

The **Outlook is Stable** and reflects the Stable Outlook on the ratings of KfW's guarantor, the Federal Republic of Germany.

What could move the rating up:

- There are no positive rating-change drivers as KfW is rated AAA, the highest rating on our rating scale.

What could move the rating down:

- Any material change in the sovereign creditworthiness of the Federal Republic of Germany and a downgrade of Scope's sovereign rating assessment (AAA/Stable).
- Any material change to credit support by the Federal Republic of Germany, notably the explicit guarantee, public law status, Anstaltslast and exemptions from insolvency law and taxation.

Ratings & Outlook

Issuer rating	AAA
Outlook	Stable
Senior unsecured debt rating	AAA
Short-term debt rating	S-1+

The ratings are not applicable to debt issued by unguaranteed subsidiaries of the rated bank.

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Issuer profile

KfW is a public law institution that is 80% owned by the Federal Republic of Germany and 20% owned by the German federal states, the *Länder*. Established in 1948, KfW is Germany's national promotional bank and supports the economic and policy objectives of the federal government. Chartered under public law (Anstalt öffentlichen Rechts, AöR), KfW cannot be subject to insolvency proceedings and is exempt from the EU's Bank Recovery and Resolution Directive.

KfW employs more than 7,700 staff between its headquarters in Frankfurt am Main, its two branches in Berlin and Bonn, and its major subsidiaries KfW IPEX-Bank (IPEX-Bank), DEG-Deutsche Investitions- und Entwicklungsgesellschaft (DEG), KfW Capital and the business area KfW Entwicklungsbank. The group operates around 80 representative offices worldwide.

Rating drivers under Scope's GRE Methodology

Ratings are aligned with that of the Federal Republic of Germany

We consider KfW as a government related entity (GRE) and apply our top-down approach to the ratings of KfW under Scope's GRE Rating Methodology.

The law expressly states that the Federal Republic guarantees all of KfW's existing and future obligations with respect to money borrowed, bonds and notes issued, derivative transactions entered into by KfW, and obligations of third parties expressly guaranteed by KfW. Under the statutory guarantee, if KfW fails to make any payment required on securities issued by KfW or under KfW's guarantee, the Federal Republic will be liable for that payment as and when it is due and payable. The direct obligation against the Federal Republic can even be enforced before any legal action is taken against KfW.

In addition, under the German administrative law principle of Anstaltslast, the Federal Republic must maintain KfW in a position that ensures it can pursue its operations and meet its obligations. While Anstaltslast is not a formal guarantee of KfW's obligations, this legal principle ensures that KfW's obligations are backed by the Federal Republic. No appropriation or any other action by the German parliament is required to fulfil its obligations under Anstaltslast.

Given the statutory guarantees, we fully align our ratings of KfW with those of the Federal Republic of Germany under our top-down approach for rating government related entities.

IPEX-Bank excluded from guarantees

In a formal understanding established in March 2002, the European Commission confirmed that KfW's promotional activities will continue to benefit from the statutory guarantee from the Federal Republic and Anstaltslast. However, the institution must separate these activities from its commercial business (i.e. activities not deemed to be of a promotional nature).

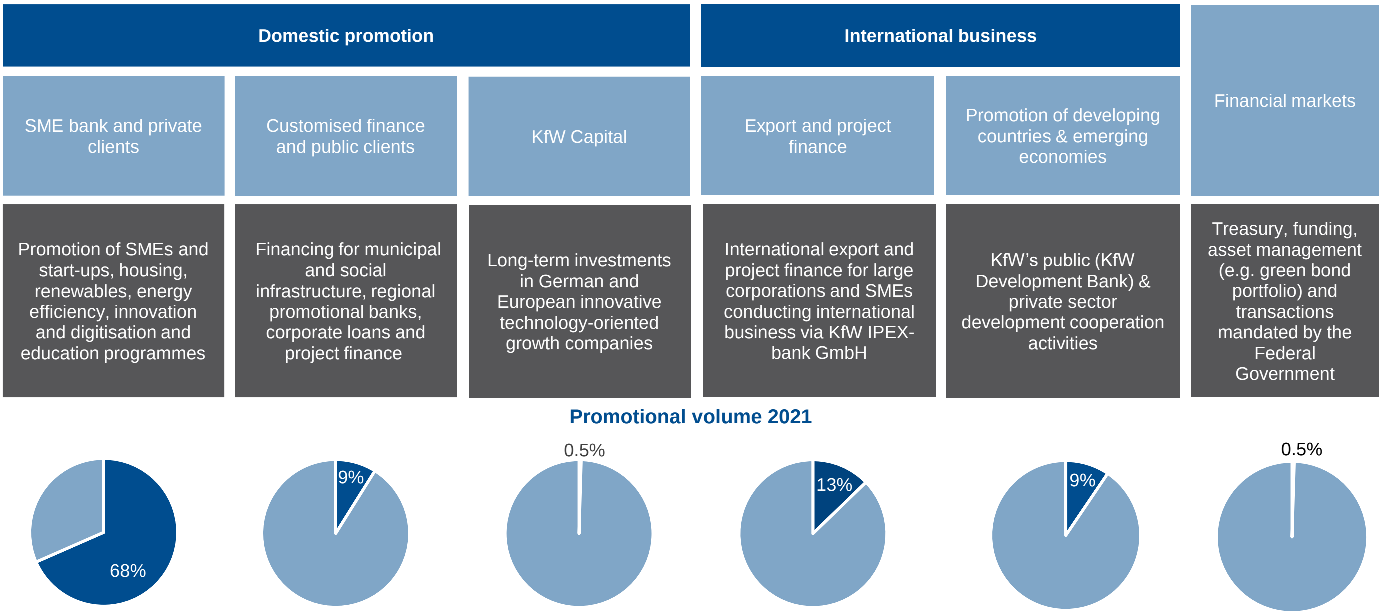
IPEX-Bank has been operating the commercially oriented export and project finance business as a wholly owned legally independent subsidiary of KfW Group since 2008. IPEX-Bank was legally separated from KfW to satisfy EU state aid rules. KfW continues to fund IPEX-Bank internally on an arm's length basis, at market rates and without extending any benefits arising from Anstaltslast or any guarantee from the German state.

KfW Group also operates via its subsidiary DEG and its business area KfW Entwicklungsbank. DEG finances and accompanies private companies operating in developing and emerging countries; KfW Entwicklungsbank supports emerging countries, for example as part of the Climate and Environmental Protection Initiative. IPEX-Bank, DEG and KfW Entwicklungsbank carry out KfW group's international business. KfW has pooled its venture capital activities in KfW Capital to invest in venture capital and venture debt funds on equal terms in collaboration with other investors via the European Recovery Program Special Fund and the German government's Future Fund.

Business model

KfW's domestic promotional activities are organised into three business areas: i) SME bank and private clients, which integrates highly standardised direct and on-lending offerings; ii) customised finance and public clients, which caters to institutional counterparties and individual financing services; and iii) KfW Capital, which aggregates KfW's venture capital investments mentioned above and aims to sustainably improve the supply of venture and growth capital for innovative technology companies in Germany. The group expects KfW Capital, with the support of the European Recovery Program Special Fund, to invest around EUR 4.5bn German and European venture capital funds until 2030 to give innovative start-ups and growth companies better access to capital through financially stronger funds.

Figure 1: KfW group business overview



Source: Company data, Scope Ratings

KfW's international activities include export and project finance as well as international promotional finance. Through IPEX-Bank, KfW finances German and European companies in global markets to support the competitiveness and internationalisation of German and European exporters and ensure the supply of credit to the German export industry. This is especially the case where export transactions are at risk due to a lack of liquidity supply from banks.

KfW also supports economic and social progress in developing and emerging countries through KfW Entwicklungsbank and DEG. The business unit KfW Entwicklungsbank finances development projects worldwide on behalf of the German federal government, primarily the Federal Ministry for Economic Cooperation and Development and the European Union. DEG finances and advises German and local companies active in developing and emerging countries. DEG offers its customers long-term financing, various promotional programmes and advisory services. KfW has decided to split the previous business segment promotion of developing countries and emerging economies with the two units KfW Entwicklungsbank and DEG into two separate segments from 2022.

Additional indemnities for specific activities

The German federal government can directly mandate KfW to acquire assets on its behalf or to undertake exceptional government lending measures. For example, in 2022 KfW entered in mandated transactions to support systemically important energy utilities securing the energy supply in Germany. These unplanned transactions have been committed in particular for gas replacement purchases, to cover short-term liquidity requirements and to finance the procurement of natural gas for the statutory fulfilment of certain storage levels in gas. In addition, KfW can be mandated to take stakes in specific companies in particular cases. This includes, for example, a 50 percent stake in the planned LNG terminal in Brunsbüttel, which will later be converted to use green energy sources. The credit risks associated with the mandated transactions are borne by the federal government.

In addition to these mandated transactions KfW has launched special programmes such as its KfW-Sonderprogramm UBR to safeguard the liquidity of companies affected by the war in Eastern Europe or its special programme for municipalities to invest in refugee facilities in the amount of EUR 500m.

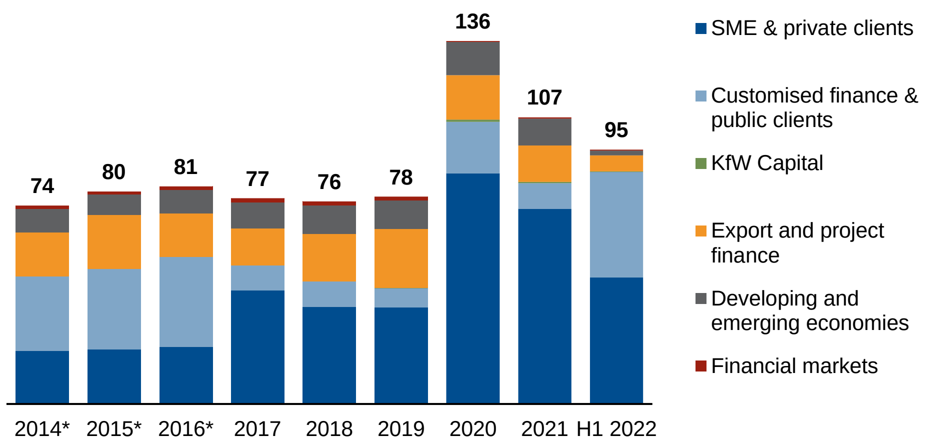
Transformation agenda to tackle environmental and digital challenges

Under its mission statement ‘Digital Transformation and Development Bank’, KfW has introduced its new transformation agenda, KfWplus+. In line with its promotional principles, KfW focuses on financing projects in the areas of climate change & environment as well as digitalisation & innovation. With this refocusing, KfW aims to strengthen resilience to challenges in Germany and Europe by gearing its promotional measures towards their impact and to mobilise private capital for sustainable transformation.

Strongly increasing promotional volumes

KfW’s new business volumes have increased significantly in H1 2022 to EUR 95.1bn, up from EUR 49.8bn in H1 2021 (Figure 2). This was predominantly due to special circumstances, as demand for the federal funding programmes for efficient buildings was particularly strong at EUR 30.2bn. Mandated transactions on behalf of the federal government to support energy suppliers contributed EUR 33.4bn to the already high funding volume in the first half of the year.

Figure 2: Promotional business volumes (in EUR bn)



* from 2017, private clients are reported together with SME instead of public clients
Source: Company data, Scope Ratings

In the second half of 2022, mandated transactions to support the energy sector remained KfW’s most dynamic promotional area. The commitment volume increased to EUR 52bn with disbursements amounting to EUR 40bn by the end of October 2022.

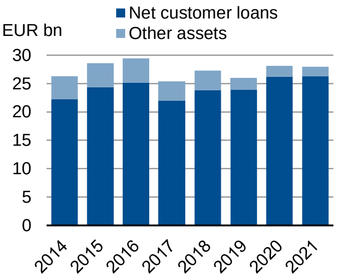
Regulatory framework

KfW is neither a credit institution nor a financial services institution under the German Banking Act or relevant EU directives and regulations. However, bank regulatory provisions apply to KfW. These include capital adequacy requirements and a special regime for minimum requirements for risk management. KfW remains, however, exempt from rules regarding liquidity, disclosure and recovery and resolution. It is the responsibility of Germany's Federal Financial Supervisory Authority in cooperation with the Bundesbank to ensure compliance. With respect to all other applicable laws, KfW remains under the legal supervision of the Federal Ministry of Finance.

Supervision mostly in line with general financial institutions

As an independent banking subsidiary, IPEX-Bank could come under direct ECB supervision, including stress testing, if it continues to grow its balance sheet to above EUR 30bn. At end-2021, IPEX-Bank had a balance sheet of EUR 27.9bn (Figure 3).

Figure 3: IPEX-Bank assets



Source: Company data, Scope Ratings

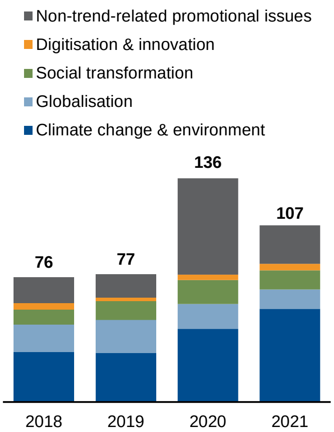
Sustainability strategy

Sustainability aspects are bindingly integrated into KfW's medium- to long-term positioning

As part of its transformation agenda, KfW has set the course for a harmonised understanding of impact across the group and improved measurability and reporting on the sustainability impact of projects financed or co-financed by KfW. Under this sustainable finance concept, which has been pooled in the project tranSForm, KfW also aims to align its own contribution with the UN's Sustainable Development Goals and the Paris climate targets. As part of this agenda, KfW has also committed to resource-efficient banking operations and a stronger role as a responsible employer at the organisational and process levels. Moreover, the strategy programme is in line with the mandate of the federal government, its Climate Action Programme 2030 and the German Sustainability Strategy.

Since 2020 KfW has been experiencing increasing demand for promotion in the area of climate change and the environment, especially for efficient buildings. In 2021, the share of environment-related financing accounted for 53% of total new business, which was well above KfW's own strategic target of 38% (Figure 4). Without the Covid-19 emergency measures, the share would have been 58%. In total, KfW has committed EUR 250bn worldwide to environmental and climate protection over the past ten years.

Figure 4: Promotional business volume by megatrend (EUR bn)



Source: Company data, Scope Ratings

In its sustainable promotional activities, KfW separates the socially and economically important megatrends into the following categories: climate change & environment, globalisation, social transition and digitalisation and innovation, all of which are embedded in its strategic objectives. KfW also reports on the remaining promotional areas that are not related to any megatrends (Figure 4).

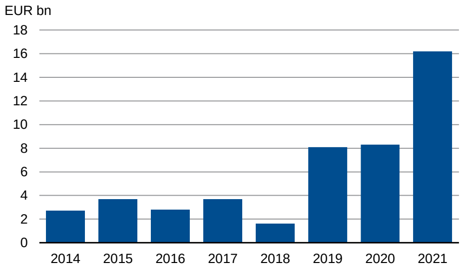
Since 2015, KfW has also been actively investing in green bonds on a global scale. Its EUR 2.2bn portfolio as at end-2021 is backed by a mandate from the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection. The focus is on green bonds financing energy efficiency and renewable energy projects. KfW will continue investing in green bonds and targets a portfolio volume in a range of EUR 2.0bn-2.5bn.

As a public law institution, KfW does not fall within the scope of the EU taxonomy. Its subsidiary IPEX-Bank, on the other hand, is subject to those requirements. KfW has addressed the establishment of the EU taxonomy with its tranSForm project at the group level. For 2022, KfW targets the introduction an additional Paris-compatible sector guideline and the creation a greenhouse gas accounting system. Moreover, it also intends to continue to prepare for the application of EU taxonomy and the new EU directive on sustainability reporting.

Global top-tier green bond issuer

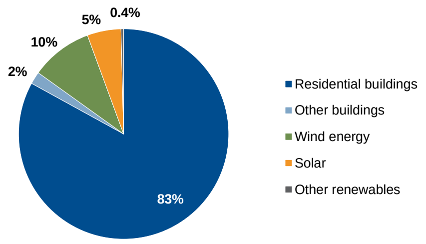
KfW has been active as a green bond issuer since 2014 and is one of the largest issuers worldwide. In 2021, it issued EUR 16bn of green bonds in 13 currencies. For 2022, KfW planned a total volume of at least EUR 10bn. As at end-October 2022, the issuance volume of Green Bonds amounted to EUR 8.0bn and the total capital market funding volume to EUR 86.5bn (Figure 11). In this context, KfW actively supports the qualitative development of the green bond market, mainly through market initiatives and in a direct dialogue with market participants.

Figure 5: Green bond issuance



Source: Company data, Scope Ratings

Figure 6: Underlying green assets (total EUR 21.3bn)



Source: Company data, Scope Ratings

Profitability

As a promotional bank, KfW does not seek to maximise profits, though management keeps a close eye on efficiency. After a steady increase in recent years, the cost-income ratio stabilised at a sound level of 40% in 2021.

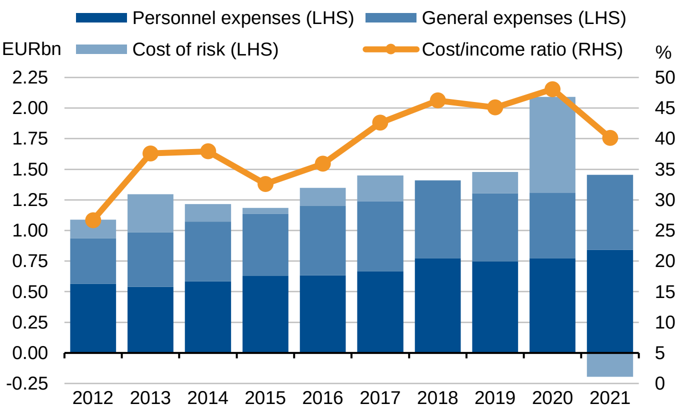
In the wake of the recovery of the economic environment, KfW's earnings situation improved significantly in 2021 when compared to previous years, with a consolidated profit of EUR 2.2bn (2020: EUR 525m). This was due to an exceptionally good risk result, thanks to a reversal of loan loss provisions and a positive fair value result of the investment portfolio. In the previous year, cost of risk had been significantly impacted by the economic effects of the pandemic on KfW's lending and investment business.

At EUR 2.5bn (2020: EUR 2.6bn), net interest income (before promotional expenses), which declined slightly due to the low level of interest rates, is KfW's stable and main source of income. However, net fee and commission income has made a strong contribution to earnings growth in recent years. At EUR 623m in 2021, it was well above the previous year's figure of EUR 573m (+9%). This was mainly due to increased demand for federal promotional programmes, particularly in the areas of energy efficiency and renewable energy, including charging infrastructure.

Loan loss provisions for KfW's lending business amounted to a net reversal of EUR 196m (EUR -781m), which was characterised by reversals of the pandemic-related latent risk reserves built in 2020, small additions to specific valuation allowances and recoveries on written-off receivables.

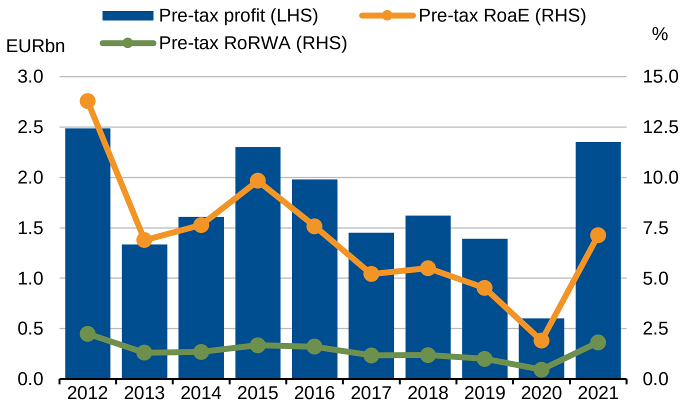
Figure 7: Profitability

Operating efficiency and cost of risk



Source: SNL, Scope Ratings

Return on equity



Source: SNL, Scope Ratings

In H1 2022, KfW's consolidated profit remained satisfactory at EUR 949m (H1 2021: EUR 1.4bn), which was largely due to the strong development of its operative business and moderate cost of risk (EUR -52m), as well as revaluations in the investment portfolio (EUR 128m) and derivatives used for hedging (EUR 142m) in Q2 2022.

We expect that profit will remain stable in H2 2022. However, we expect the indirect negative consequences of the Russia-Ukraine war to be reflected in the risk result and possibly also in the valuation result in 2023. For 2023 and 2024, we consider a deterioration into the loss-making zone to be very unlikely.

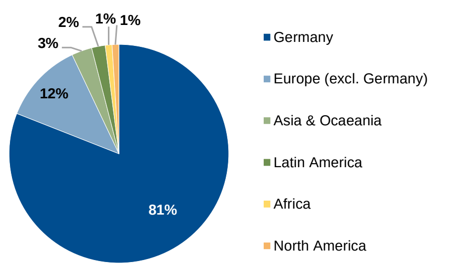
Asset quality

Exposure dominated by financial institutions

Under its statutory mandate, KfW must generally involve financial institutions when granting promotional financing. Loans are extended to banks, which then on-lend the funds to the ultimate borrowers. In its domestic business, KfW lends to commercial banks and regional development banks (Landesförderinstitute), which are responsible for promotional activities in their respective federal states. Due to the nature of KfW's business of on-lending most of its funds through other financial institutions, the concentration on a few German groups is inevitable and well covered by collateral pledges. This is reflected in KfW's internal risk modelling as well as its application of standard regulatory restrictions on large exposures.

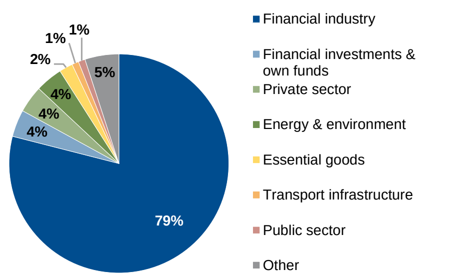
Figure 8: Economic capital requirements (end-2021)

By region



Source: Company data, Scope Ratings

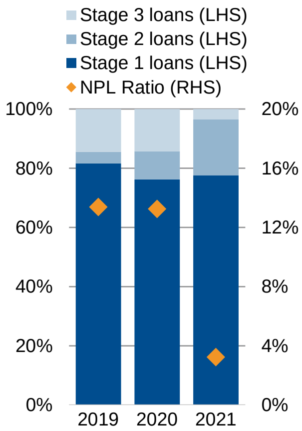
By industry



Source: Company data, Scope Ratings

The portion of loans extended directly to ultimate borrowers (e.g. municipalities, project finance and education programmes) is limited. The breakdown of the group's loan portfolio by industry as per the internal capital model is shown in Figure 8.

Figure 9: Customer loan quality (IFRS9)



Source: SNL, Scope Ratings

As of end-2021, KfW reported EUR 4.5bn stage 3 loans under IFRS 9, which was materially down from EUR 18.2bn at end-2020: a support measure of about EUR 15bn for Greece was discontinued following a rating upgrade for Greece (Figure 9). A large part of these exposures is directly covered by federal guarantees and credit insurance. In 2021, net loan loss provisions for lending business contributed EUR 196m to overall KfW's performance, significantly improved from the previous year, which had been negatively impacted by the pandemic (EUR -781m).

Reversals were due to reduced provisions for latent risks in stages 1 and 2 based on the macroeconomic environment assessment, which was more favourable than that of 2020. Reversals of risk reserves for stage 3 for individual impaired loans and income from recoveries of loans previously written off also contributed to the positive risk result.

In H1 2022, loan loss provisions amounted to a comparatively low EUR 52m as KfW benefited from the partial reduction of its Russia-Ukraine exposure through successful restructuring measures. Overall, the period was characterised by a still slightly worsening economic environment.

We expect loan loss provisioning to remain relatively manageable in 2022. For 2023, in contrast, we expect increasing cost of risk, likely to be incurred primarily in the export financing business.

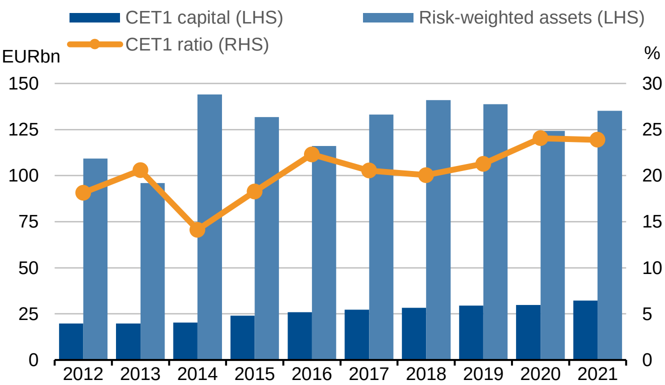
Capitalisation

Strong capital buffer unlikely to change in dynamic environment

KfW calculates the majority of its risk-weighted assets on the basis of the advanced internal ratings-based approach. Although CET1 capital increased considerably by 8% YoY to EUR 32bn at end-2021 as a result of the steady internal capital generation - KfW is prohibited from distributing profits under the KfW law - there was a slight decrease in regulatory capital ratios (Figure 10). This was primarily due to the significant increase in risk-weighted assets, which rose by 9% YoY to EUR 135bn as a result of the implementation of CRR II, methodological adjustments (in particular the application of regulatory internal ratings-based approach requirements) and the reclassification of a number of structured funds as securitisations.

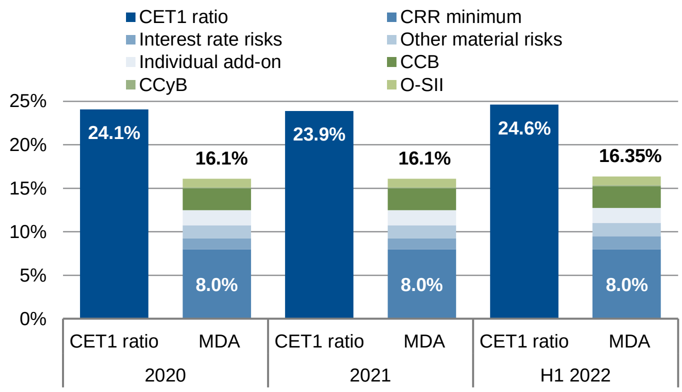
Figure 10: Capital Adequacy

CET1 ratio



Source: SNL, Scope Ratings

SREP requirement (CET1 ratio)



Source: SNL, Scope Ratings

As of end-H1 2022, KfW reported a strong 24.6% CET1 ratio, which leaves the bank with a comfortable buffer above its minimum requirement of 16.35% (Figure 10).

The impact of the macroprudential measures announced by the regulators (increasing the domestic countercyclical capital buffer and addressing specific risks from residential real estate finance) at the beginning of 2022 will remain low. The KfW portfolio does not contain any significant residential collateralised exposure as the residential programmes are concluded as part of the on-lending business and are collateralised by sub-borrower assignments. According to KfW's own impact analysis, the 75 basis points increase in the countercyclical capital buffer in Germany will increase capital requirements by 20 basis points from 1 February 2023.

Improving risk-bearing capacity

In addition to complying with regulatory requirements, KfW also calculates its economic risk-bearing capacity based on an internal capital model (Table 1), which includes market risk that is only partly captured in regulatory capital. The model suggests the group had significantly more excess capital (EUR 17.6bn) than the excess over minimum regulatory capital requirements (EUR 14.5bn) as of end-2021.

Table 1: KfW economic risk-bearing capacity

EUR m	2018	2019	2020	2021
Credit risk	11,346	9,057	10,010	9,949
Market risk	5,403	3,275	3,689	3,377
Operational risk	1,441	844	693	787
Project risk	81	91	57	60
Capital buffer for model risk		1,200	1,400	1,100
Economic capital requirement	18,369	14,467	15,849	15,272
Internal capital	28,297	29,775	30,372	32,851
Excess coverage	9,928	15,308	14,523	17,579
Solvency standard	99.99%	99.90%	99.90%	99.90%

Source: Company data, Scope Ratings

Funding and liquidity

A large, steady capital market issuer with a globally diversified and stable investor base

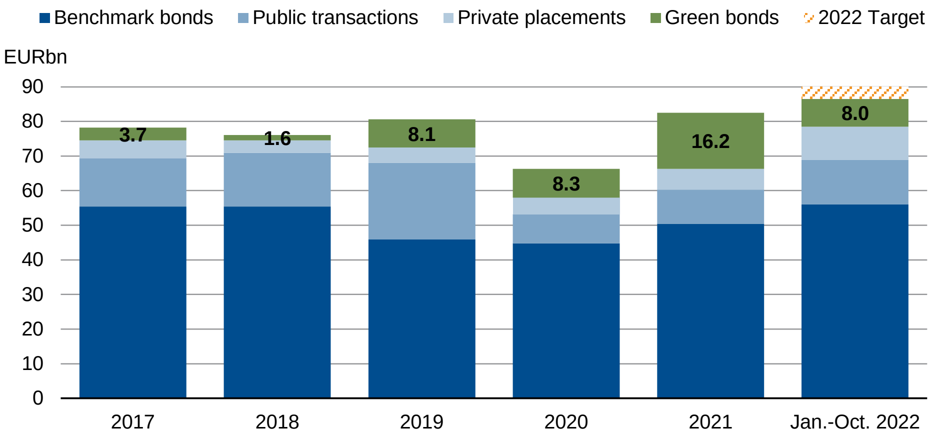
As KfW is not permitted to take deposits, the group funds itself almost exclusively through capital markets, where it maintains very good relations with its stable and globally diversified investor base. Debt instruments accounted for 87% of financial liabilities at end-2021.

In line with the medium- and long-term nature of promotional loans, the initial maturity of most bonds is more than one year. The group's duration gap is moderate, but risk is actively managed.

As the EU’s largest agency issuer, the group attracts a wide investor base comprised mostly of central banks, banks (KfW bonds benefit from 0% risk-weights as well as level 1 status in the EU and HQLA status in the US), asset managers and pension funds.

Each year, KfW determines its overall term-funding requirement based on the expected activities to be financed. Due to its involvement in various initiatives to mitigate the economic and social consequences of the Russia-Ukraine war as well as high domestic demand, in mid-July KfW raised its capital market funding target for 2022 to EUR 90bn, up from EUR 80bn-85bn (Figure 11). At least EUR 10bn is to be issued as green bonds.

Figure 11: Capital market funding volume



Source: Company data, Scope Ratings

In 2021, KfW Group raised a total of EUR 82.6bn on international capital markets. In 2020, KfW had reduced its capital markets funding volume to EUR 66.4bn due to its participation in ECB's targeted longer-term refinancing operations (EUR 13.4bn), which were repaid by end-2021.

EUR and USD to remain key currencies

KfW aims to optimise its market terms by basing its funding strategy on diversifying its instruments, currencies and investors. Interest rate and currency risks are reduced through hedging instruments and partly by matching funding liabilities with loans. Both the euro and US dollar are considered core currencies, together accounting for around 80% of new capital market funding over the past few years. In 2021, bonds denominated in euro accounted for 55% in 2021 (2020: 64%); while USD denominated bonds accounted for 26% (2020: 24%). In addition, KfW regularly raises funds in a broad range of currencies including RMB, which are used as part of its diversified and opportunistic funding plan.

In order to fund the KfW special programme to support the German economy during the Covid-19 pandemic, funds totalling around EUR 42bn were raised via the Economic Stabilisation Fund since the outbreak of the pandemic. The outstanding funding was EUR 36.4bn as of 31 December 2021. In early December 2021, the federal government and KfW extended the deadline for applications for the KfW special programme to 30 April 2022. By the end of October 2022, the federal government authorised the Economic Stabilisation Fund to cover KfW's funding needs from mandated transactions for companies in the energy sector with the unallocated funds from the credit authorisation granted in March 2020 under the Corona pandemic.

Low liquidity risk

In our view, liquidity risk is very low. The group operates large Euro-Commercial Paper (EUR 90bn) and United States Commercial Paper (USD 30bn) programmes, which are mainly used for liquidity purposes. At end-2021, KfW had EUR 37.4bn of Euro-Commercial Paper and USD 10.3bn of United States Commercial Paper outstanding. In addition, the group maintains a liquidity portfolio of EUR and USD denominated fixed-income securities and balances with central banks of EUR 32bn at end-December 2021. The liquidity held serves to ensure the expected servicing of the support measures and to be able to respond to market events at short notice.

I. Appendix: GRE Methodology top down approach – KfW

Analytical component	Weight	Assessments			
		Limited (1)	Medium (50)	High (100)	Not applicable
Legal status	40%	○	○	●	○
Purpose & activities	20%	○	○	●	○
Shareholder structure	20%	○	○	●	○
Financial interdependencies	20%	○	○	○	●

Integration score		100		
Indicative approach	***Score***	1 ≤ x < 33.3	33.3 ≤ x ≤ 66.7	**66.7 < x ≤ 100**
	Approach	Bottom-Up	Top-Down or Bottom-Up	**Top-Down**
Approach adopted		Top-Down		

Legal Status: KfW has a public legal form (Anstalt öffentlichen Rechts) that implies liability for the public sponsor, the Federal Republic of Germany. The entity is not subject to private insolvency proceedings.

In addition, KfW is not subject to the CRR, the SRM, the Recovery and Resolution Act or the Restructuring Fund Act. This releases the bank from the obligation of drawing up recovery plans. KfW does not take deposits and is thus not subject to the German Deposit Guarantee Act. KfW can be dissolved only by a law.

Purpose & activities: KfW provides essential public services on behalf of the federal government that are instrumental to the implementation of political objectives with a non-profit-maximising motive. Its function and business is specified in the KfW law.

KfW's ultimate objective is public welfare, not profit, and its main credit risk exposure consists of intermediate banks that lend to the ultimate borrowers.

Ownership structure: KfW is 80% owned by the Federal Republic of Germany and 20% by the German federal states.

Financial interdependencies: KfW does not take deposits and funds its promotional business almost entirely via international capital markets. In this context, substantial support is provided by the guarantee framework in form of an explicit guarantee. The guarantee enables KfW to tap capital markets at very favourable rates, which also supports the bank's funding rates and net interest margins respectively. Therefore, the capacity of KfW to generate income is dependent on the sponsor's financial capacity, resulting in a strong link between its credit quality and its sponsor. Given the explicit guarantee, it is no expedient to analyse the GRE's income structure to assess the degree of integration with its public sponsor, which underpins our assessment of 'non-applicable' for financial interdependency.

In general and in line with its German peers, KfW is a self-supporting GRE and does not rely on regular contributions from the federal government. There is no record of direct financial support; any regular financial support is neither needed nor expected in our view. We expect KfW's profits to remain low but sufficient to fulfil its promotional duties. There is no distribution of profits.

II. Appendix: Selected financial information – KfW

	2017	2018	2019	2020	2021
Balance sheet summary (EURm)					
Assets					
Cash and interbank assets	285,401	297,683	309,865	339,677	350,738
Total securities	57,482	59,586	64,924	64,379	58,325
of which, derivatives	23,867	23,857	27,129	25,536	18,468
Net loans to customers	126,479	125,528	127,988	138,991	138,770
Other assets	2,821	2,993	3,245	3,337	3,129
Total assets	**472,183**	**485,790**	**506,022**	**546,384**	**550,962**
Liabilities					
Interbank liabilities	5,990	8,220	14,899	22,570	13,753
Senior debt	406,290	418,581	436,260	425,340	447,669
Derivatives	17,509	12,518	9,204	13,708	6,401
Deposits from customers	9,886	12,303	10,131	48,519	44,697
Subordinated debt	0	0	0	0	0
Other liabilities	3,766	3,853	4,166	4,450	4,235
Total liabilities	**443,441**	**455,475**	**474,660**	**514,587**	**516,755**
Ordinary equity	28,742	30,315	31,362	31,797	34,207
Equity hybrids	0	0	0	0	0
Minority interests	0	0	0	0	0
Total liabilities and equity	**472,183**	**485,790**	**506,022**	**546,384**	**550,962**
Core tier 1/ common equity tier 1 capital	*27,347*	*28,278*	*29,526*	*29,896*	*32,279*
Income statement summary (EURm)					
Net interest income	2,393	2,228	2,347	2,547	2,386
Net fee & commission income	303	362	499	573	623
Net trading income	194	428	-16	-413	653
Other income	20	27	61	17	-39
Operating income	**2,910**	**3,045**	**2,891**	**2,724**	**3,623**
Operating expenses	1,240	1,408	1,304	1,310	1,454
Pre-provision income	**1,670**	**1,637**	**1,587**	**1,414**	**2,169**
Credit and other financial impairments	209	3	173	781	-196
Other impairments	7	10	24	32	12
Non-recurring income	0	0	0	0	0
Non-recurring expense	0	0	0	0	0
Pre-tax profit	**1,453**	**1,623**	**1,391**	**600**	**2,353**
Income from discontinued operations	0	0	0	0	0
Income tax expense	26	-13	23	76	137
Other after-tax Items	0	0	0	0	0
Net profit attributable to minority interests	0	0	0	0	0
Net profit attributable to parent	**1,427**	**1,636**	**1,367**	**525**	**2,215**

Source: SNL, Scope Ratings

III. Appendix: Selected financial information – KfW

	2017	2018	2019	2020	2021
Funding and liquidity					
Net loans/ deposits (%)	1570.97%	1088.91%	1365.76%	273.99%	295.69%
Liquidity coverage ratio (%)	NA	NA	NA	NA	NA
Net stable funding ratio (%)	NA	NA	NA	NA	NA
Asset mix, quality and growth					
Net loans/ assets (%)	26.79%	25.84%	25.29%	25.44%	25.19%
Problem loans/ gross customer loans (%)	0.68%	13.52%	13.39%	13.25%	3.23%
Loan loss reserves/ problem loans (%)	148.15%	7.87%	8.24%	9.78%	37.63%
Net loan growth (%)	-6.50%	-0.75%	1.96%	8.60%	-0.16%
Problem loans/ tangible equity & reserves (%)	2.90%	54.58%	53.17%	55.77%	12.67%
Asset growth (%)	-6.87%	2.88%	4.16%	7.98%	0.84%
Earnings and profitability					
Net interest margin (%)	0.38%	0.47%	0.48%	0.49%	0.44%
Net interest income/ average RWAs (%)	1.92%	1.63%	1.68%	1.94%	1.84%
Net interest income/ operating income (%)	82.23%	73.17%	81.18%	93.50%	65.86%
Net fees & commissions/ operating income (%)	10.41%	11.89%	17.26%	21.04%	17.20%
Cost/ income ratio (%)	42.61%	46.24%	45.11%	48.09%	40.13%
Operating expenses/ average RWAs (%)	1.00%	1.03%	0.93%	1.00%	1.12%
Pre-impairment operating profit/ average RWAs (%)	1.34%	1.19%	1.13%	1.08%	1.67%
Impairment on financial assets / pre-impairment income (%)	12.51%	0.18%	10.90%	55.23%	-9.04%
Loan loss provision/ average gross loans (%)	0.16%	0.00%	0.14%	0.58%	-0.14%
Pre-tax profit/ average RWAs (%)	1.17%	1.18%	0.99%	0.46%	1.81%
Return on average assets (%)	0.29%	0.34%	0.27%	0.10%	0.40%
Return on average RWAs (%)	1.15%	1.19%	0.98%	0.40%	1.71%
Return on average equity (%)	5.11%	5.56%	4.44%	1.68%	6.67%
Capital and risk protection					
Common equity tier 1 ratio (%, fully loaded)	NA	NA	NA	NA	NA
Common equity tier 1 ratio (%, transitional)	20.55%	20.06%	21.28%	24.06%	23.89%
Tier 1 capital ratio (%, transitional)	20.55%	20.06%	21.28%	24.06%	23.89%
Total capital ratio (%, transitional)	20.55%	20.07%	21.28%	24.25%	23.93%
Leverage ratio (%)	NA	NA	NA	NA	NA
Asset risk intensity (RWAs/ total assets, %)	28.18%	29.02%	27.42%	22.74%	24.53%
Market indicators					
Price/ book (x)	NA	NA	NA	NA	NA
Price/ tangible book (x)	NA	NA	NA	NA	NA
Dividend payout ratio (%)	NA	NA	NA	NA	NA

Source: SNL, Scope Ratings

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