Kreditanstalt für Wiederaufbau (KfW) **Issuer Rating Report**



Overview

Scope Ratings has an issuer rating and senior unsecured debt ratings of AAA, as well as a short-term debt rating of S-1+ to Kreditanstalt für Wiederaufbau (KfW). The Outlook on all ratings is stable.

Highlights

- KfW Group is the largest German government development bank and one of the largest sub-sovereign agency issuers in Europe. Under the direction of the Federal Finance Ministry and within a mandate set by law, KfW plays a critical role for implementing economic policy in Germany.
- Most recently, KfW took a leading role in Germany's pandemic response programme by providing loan facilities to corporate and SME borrowers and other financial facilities on behalf of central government. As part of the pandemic response, KfW receives funding support directly from the Federal Republic's Economic Stabilisation Fund.
- The net loss in the first half of 2020 reflects the extraordinary impact of the Covid-19 induced global economic downturn but is still well within KfW's risk-bearing capacity. Counterparty, market, liquidity and operational risks are managed in a prudent manner, reflecting the extensive investment into risk management and compliance processes in recent years.

Rating drivers (summary)

The rating drivers, in decreasing order of importance in the rating assignment, are:

- KfW's current and future obligations carry an explicit and unconditional first-demand guarantee by the Federal Republic of Germany, thus providing creditors with direct recourse to the sovereign. In addition, KfW benefits from a maintenance obligation by the Federal Republic under the principle of Anstaltslast.
- · Chartered under public law (AöR), KfW cannot be subject to insolvency proceedings and is exempt from the EU's BRRD.
- KfW's high strategic importance and clearly defined public mission, Scope believes that the Federal Republic as 80% owner will provide extraordinary support to KfW prior to any potential call on guarantees should it be required.

Ratings & Outlook

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

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

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in Bloomberg: SCOP

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Rating-change drivers

There are no positive rating-change drivers as KfW is rated AAA, the highest rating on **Scope's rating scale**.

Factors which could negatively impact the ratings are as follows:



Any material changes to credit support provided by the Federal Republic of Germany, notably the explicit guarantee, public law status, Anstaltslast and exemptions from insolvency law and taxation



Any material changes in the sovereign creditworthiness of the Federal Republic of Germany resulting in a downgrade of Scope's sovereign rating assessment (AAA/Stable).

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Scope considers KfW a government related entity

KfW's ratings are fully aligned with Germany

Additional indemnities for specific activities

Certain subsidiaries are excluded from guarantees

Rating drivers (details)

KfW is a public law institution which is 80% owned by the Federal Republic of Germany and 20% by the German federal states, the Länder. Established in 1948, KfW is Germany's national promotional bank, supporting the economic and policy objectives of the federal government. Chartered under public law (AöR), KfW cannot be subject to insolvency proceedings and is exempt from the EU's BRRD.

Scope therefore considers KfW as a government related entity and applies its top-down approach to the ratings of KfW under its Methodology for Government Related Entities.

The KfW law expressly states that the Federal Republic guarantees all existing and future obligations of KfW in respect of money borrowed, bonds and notes issued, derivative transactions entered by KfW, and obligations of third parties expressly guaranteed by KfW. Under the statutory guarantee the Federal Republic is liable for that payment when due. The direct obligation against the Federal Republic provides creditors with a direct and unconditional claim against the Federal Republic, thus, enforceable before any legal action is taken against KfW.

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

In a formal understanding established in March 2002, the European Commission confirmed that KfW's promotional activities do not fall under illegal state aid and will continue to benefit from Anstaltslast and the statutory guarantee from the Federal Republic.

Based on the statutory guarantees, Scope fully aligns its ratings for KfW with those of the Federal Republic of Germany under its top-down approach for rating government related entities.

More information regarding the required regulatory disclosures in the EU related to Scope's assessment of KfW can be found in Annex 1 to this document.

On a case-by-case basis, the Federal government directly mandates KfW to acquire assets on behalf of the German federal government or to undertake exceptional government lending programmes. For example, KfW provided EUR 45bn of lending in 2020 (year-to-date) and expects to receive EUR 30bn in Q3 and EUR 8bn in Q4 from the Economic Stabilisation Fund that was set up to support companies that were negatively affected by the Covid-19 recession.

KfW also purchases stakes in industrial companies on behalf of the Federal Republic, for example CureVac AG in June 2020 or provided EUR 15bn loans to Greece in 2011. Risks related to such mandated operations reside with the federal government and are covered by specific guarantees.

Since 2008, KfW IPEX-Bank has been operating the commercially oriented export and project finance business as a wholly owned legally independent subsidiary of KfW Group. IPEX-Bank was legally separated 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 the guarantee from the German state.

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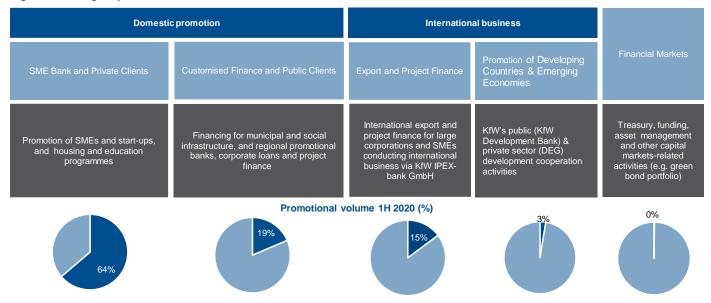
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Besides IPEX-Bank, KfW Group has three main operating subsidiaries which promotes private sector development cooperation, the Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG). IPEX-Bank, DEG and KfW Entwicklungsbank carry out KfW group's international business. Moreover, KfW pooled its venture capital activities in a new subsidiary, KfW Capital GmbH & Co KG, for financing of high-tech companies.

Business Model

The re-organisation of domestic promotional activities resulted in the creation of three business areas: i) SME Bank and Private Clients, which aggregates highly standardised direct and on-lending solutions; ii) Customised Finance and Public Clients, which caters to institutional counterparties and individual financing solutions; and iii) KfW Capital, which aggregates the venture capital investments mentioned above.

Figure 1: KfW group business overview



Source: Company data, Scope Ratings

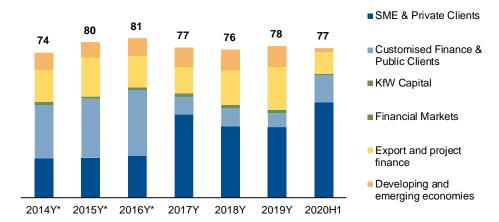
New business volume increased significantly since March 2020 due to record promotional business volume in Germany related to Corona programmes sponsored by the Federal Republic. More than 85k loan applications were made by Aug-2020, totalling about EUR 55 bn. While the programmes remain open, the uptake has, however, slowed in recent months due to the economic recovery, which as in parts helped by other fiscal policy measures such as furlough schemes.

Figure 2: Promotional business volume (in EUR bn)

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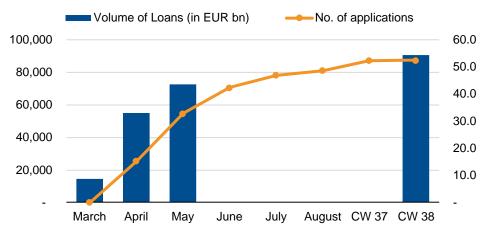


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^{*} from 2017 private clients are reported together with SME instead of public clients Source: Company data, Scope Ratings

Figure 3: Number and Volume of Applications



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, the cost-income-ratio stabilised at 44% in 2019, excluding promotional expenses.

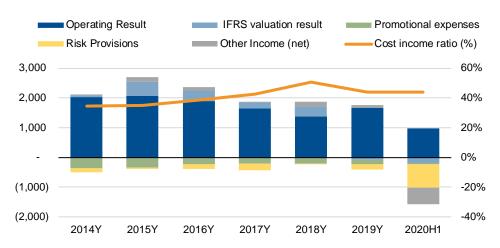
After more of a decade of steady capital accumulation, KfW reported a net loss of EUR 576mn in the first half of 2020 due to valuation adjustments on its participations portfolio and on higher general loan loss provisioning on its direct lending and project finance exposures in view of the Corona-induced recession.

Figure 4: Earnings Position (in EUR mn)

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Source: Company data, Scope Ratings

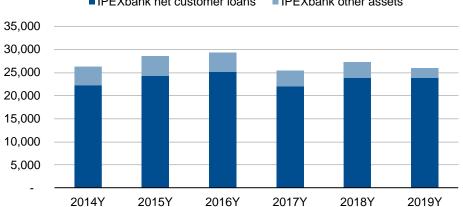
Strong stand-alone capitalisation

Capitalisation

KfW is not considered a 'credit institution' or 'financial services institution' under the German Banking Act or relevant EU directives and regulations. However, bank regulatory provisions apply to KfW by analogy. These include capital adequacy requirements and a special regime for minimum requirements for risk management (MaRisk). KfW remains, however, exempt from rules regarding liquidity metrics, disclosure and recovery & resolution. It is the responsibility of Germany's Federal Financial Supervisory Authority (BaFin) in cooperation with the Bundesbank to ensure compliance. With respect to all other applicable law, KfW remains under the legal supervision of the Federal Ministry of Finance, acting in consultation with the Federal Ministry for Economic Affairs and Energy.

As an independent banking subsidiary KfW IPEX Bank could come under direct ECB supervision, incl. stress testing, if it continues to grow its balance sheet. At year-end 2019, IPEX Bank had a balance sheet of EUR 26bn if it exceeds the EUR 30bn threshold it could bring the entity under the ECB's jurisdiction.





Source: Company data, Scope Ratings

KfW has been subject to on-site reviews by BaFin and the German Central Bank. The assessments have focused on areas such as the Internal Capital Adequacy Assessment Process, money laundering, risk-control, IT and most recently on risk provisioning. Full regulatory reporting started in Q1 2020. KfW' has obtained initial approval which covers its material exposures to calculate its minimum capital requirements for credit risk based on the internal ratings-based approach as of 06/2017. Further on, the application of IRBA

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Strong capital levels further supported by profit retention

will be and has been subject to model changes and expansion of the application area according to the implementation plan. We expect that these changes will have an ongoing positive effect on KfW's SREP requirement.

The finalisation of Basel 3 will bring further significant challenges from 2023 especially with regard to the less favourable regulatory treatment of collateral for KfW's very large domestic promotion business, where KfW passes its funds to banks against pledges that allow KfW to recourse to the underlying borrowers. It is not clear at this point, whether these rules will be fully applied to KfW as the regulation still requires the implementation at EU-level.

As of H1 2020, KfW reported a 23,7% total capital ratio, which leaves the bank with a comfortable buffer above its minimum requirements in 2020 of 16.2%. The mid-year numbers compare to 21.3% and 16.5%, respectively, as of end-2019.

Table 1: KfW capital requirements for 2018 and 2019 versus reported capital ratios

	2018	2019	1H 2020
CET1 Ratio	20.1%	21.3%	23.5%
Total Capital Ratio	20.1%	21.3%	23.7%
Min total capital requirement	15.7%	16.5%	16.2%
RWAs	141.0	138.8	126.4

Source: Company data, Scope Ratings

In addition to complying with regulatory requirements, KfW also calculates its economic risk-bearing capacity based on an internal capital model (Figure 4), which includes market risk that is only partly captured in regulatory capital. Since 2019, the solvency standard is calibrated at 99.9% in line with standard regulatory requirements and no longer at 99.99%. The relief (EUR 5.1bn) was partly offset by a new capital buffer for model risk of EUR 1.2bn. The model suggests the bank had significantly more excess capital (EUR 15.3 bn) than the excess over minimum regulatory capital requirements (6.6bn as of end-2019).

Table 2: KfW economic risk-bearing capacity

EUR mn	2018	2019
Credit risk	11,346	9,057
Market risk	5,403	3,275
Operational risk	1,441	844
Project risk	81	91
Capital buffer for model risk		1,200
Economic Capital Requirement	18,369	14,467
Internal capital	28,297	29,775
Excess coverage	9,928	15,308
Solvency standard	99.99%	99.90%

Source: Company data, Scope Ratings

In recent years, the capital base has been supported further through steady internal capital generation. KfW is also prohibited under the KfW law from distributing profits.

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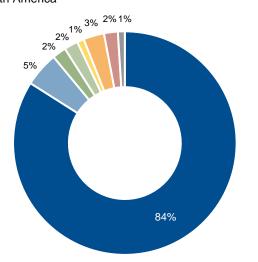
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Asset Quality

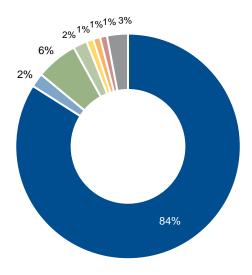
Under its statutory mandate, KfW must generally involve financial institutions when granting financing. Loans are extended to banks, which then on-lend the funds to the ultimate borrowers. In some cases, KfW lends directly to the ultimate borrower (e.g. municipalities, export and project financing activities, and education programmes). Consequently, KfW's exposure is tilted towards mainly German financial institutions. The risk of the group's loan portfolio by sector as per the internal capital model is shown in figure 7.

Figure 6: Economic capital requirements by region and sector (YE 2019, EUR 14.5bn)

- Germany
- Euro-area countries (excl.Germany)
- EU countries (excl. euro-area countries and Germany)
- Europe outside EU
- Africa
- Asia (incl. Australia and New Zealand)
- Latin America
- North America



- Financial sector
- Consumer
- Financial investment/funds
- Energy/environment
- Transport infrastructure
- Essential goods
- Commodities
- Other



Source: Company data, Scope Ratings

In its domestic business, KfW lends to commercial banks and regional development banks (Landesförderinstitute) which are responsible for promotional activities in their respective 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 the bank's internal risk modelling as well as its application of standard regulatory restrictions on large exposures.

As of year-end 2019, KfW reported EUR 17.5bn stage 3 loans under IFRS 9 but a large part of these exposures is directly covered by federal guarantees and credit insurance. Mainly in response to the worsening economic outlook, KfW set aside EUR 781mn of provisions in the 1st half of 2020. KfW expects an increase in individual defaults with a time lag from the second half of the year onwards. The resulting additional burdens on the result are to be mitigated by the general risk provisions already anticipated as of 30 June 2020.

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While KfW bears between 80-100% of the risk of loan facilities related to Corona, these exposures are covered by a separate guarantee by the Federal Republic.

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

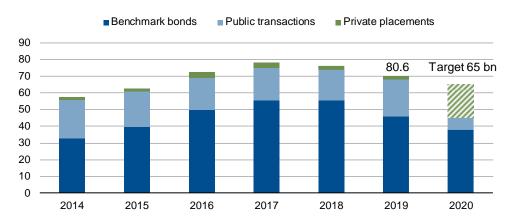
Liquidity

As KfW is not permitted to take deposits, the group obtains funding almost entirely from the capital markets – bonds and notes represented nearly 86% of total liabilities as of year-end 2019. In line with the mid- and long-term nature of promotional loans, the initial maturities of most borrowings are greater than one year. The group's duration gap is moderate, but the risk is actively managed.

Short-term borrowings, primarily in the form of commercial paper, are mainly used for liquidity purposes. At year-end 2019, KfW had EUR 33.8bn of ECP and USD 6.7bn of USCP outstanding.

Each year, KfW determines its overall term-funding requirement based on the expected level of activities to be financed. In recent years, KfW has targeted between EUR 60bn and EUR 80bn of annual issuance volumes (figure 8). For 2020, KfW has reduced the target to 65 bn due to its participation in the TLTRO program this year (EUR 13.5bn).

Figure 7: Capital market funding volume (in EUR bn)



Source: Company data, Scope Ratings

KfW aims to optimise its market terms by basing its funding strategy on diversification in terms of 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 90% of new capital market funding over the past years. KfW regularly raises funds in around 12 different currencies incl RMB, which are used as part of a continuous and opportunistic funding plan.

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. KfW's paper is also eligible for the ECB's asset purchase programmes.

ESG Factors

KfW's green bond bond share makes up more than 10% of its total funding and expect about EUR 8bn in issuance for 2020. The COVID-19 programs did not have any sustainability criteria built into them, however, the bank plans to increase its sustainability lending when the situation normalises.

A growing focus on sustainability and general ESG criteria may further support KFW's strong capital market position

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Last year the bank has also published a Sustainable Development Goals (SDG) mapping for their financing contributions so that the management reporting system integrates some impact indicators. Along with this, another project has been developed focus on not only the client side, but also the banks own carbon footprint through an internal greenhouse gas accounting system.

KfW's overarching sustainability approach spans the bank's lending business, investments, and general governance:

- KfW is one of the largest financiers of environmental investments. KfW's
 promotional mandates have focused strongly on this task since the German
 government introduced the Energiewende (transition to renewable energies) in
 2010. In 2019, around 38% of KfW's newly spent funds were employed in
 environmental and climate protection.
- KfW has also become a major player in the green bond market over the past four years. The bank launched its first green bond in 2014 with EUR 28bn issuance to date and successfully established a benchmark-size programme in EUR and other currencies such as SEK. The net proceeds from the issuance of green bonds are channelled into projects under KfW's Renewable Energies Standard programme and, since May 2019, also into financing energy efficient building projects. In this context, KfW is aligning itself to be compliant with incoming voluntary EU Green bond standard and expect to increase total Green Bond issuances to rise to EUR 20bn by end-2019.
- The bank's own bond investments also pursue sustainability targets, with specially defined investment criteria for its liquidity portfolio. Furthermore, as part of its promotional activities for financing climate and environmental protection measures, KfW launched a dedicated green bond portfolio in 2015.
- KfW considers itself as a top performer regarding environmental, social and governance (ESG) factors based on assessments by various external research providers. It is a strategic objective of KfW to achieve top sustainability ratings relative to its peers.

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Appendix: GRE Methodology Top Down Approach – Kreditanstalt für Wiederaufbau (KfW)

For detailed regulatory disclosure, please refer to Scope's rating action release on KfW, dated 27 July 2020. The detailed score cards can be found below:

Criteria	Level of integration with government					
	Integral / Strong	Limited / Weak				
Legal status & resolution framework	Public Insolvency, bankruptcy and resolution laws unlikley to apply	Private; Insolvency, bankruptcy and resolution laws do apply				
Purpose/ activities	Good/ service is backed by constitution or in the public interest	Good/ service has mostly a commercial purpose				
Shareholder structure, funding & control	Significant public ownership/funding & control	Mostly private ownership/limited public funding & con				
Approach*	Top-Down					

^{*} Two of the three parameters indicate the chosen approach for most instances.

Top-down approach	Analytical considerations		Assessment				Outcome & indicative notching	
			High Medium		Limited		notoning	
	Equalisation Factor		Statutory guarantee or laws to similiar effect		Yes	○ No	Equalisation	
support	Organisational Structure	Legal Status	○ N/A	Government department or similar	C Legal structure with significant	Legal structure with limited government		
		Ownership of & rights to GRE's assets	O N/A	Mostly government	C Somewhat government	Public and private	High	High
rnmen	Government Control	Mission, mandate and strategy	O N/A	Mostly directed by government	Government-influenced	Mostly independent		
ar gove		Financial, operating and investment policies	○ N/A	Mostly directed by government	○ Government-influenced	Mostly independent		
Likelihood of Control and regular government support		Key personnel and oversight bodies	○ N/A	Mostly directed by government	O Government-influenced	Mostly independent		
	Financial Support	Funding options	○ N/A	Mostly via government	Balanced mix of government and private	Mostly private funds		
		Support agreements	O N/A	Regular cash or capital injections	Active/ open credit lines or similar	No regular use of support mechanisms		
		Track record	● N/A	History of timely support under all	History of support under select circumstances	Support not yet required		
	Strategic importance to government		○ N/A	High strategic importance/central policy role	O Medium strategic importance/important policy role	O Low strategic importance/secondary policy role		
	Ease of substitution Default implications		N/A	Good/ service is difficult to replace	Prospects of private playeres entering the	Private sector operators provide same good/ service	High	
			● N/A	Large; default likely to affect	Some financial or reputational damage expected	C Limited impact		
Overall Assessment Indicative notches					Indicative notching		0	
Overall Assessment Indicative notches Equalisation 0					indicative notoning		U	
High Modium		0-1 1-2				Additional adjustment		0
Limited						Final indicative notching		0

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II. Appendix: Selected Financial Information – Kreditanstalt für Wiederaufbau (KfW)

	2015Y	2016Y	2017Y	2018Y	2019Y
Balance sheet summary (EUR m)					
Assets					
Cash and interbank assets	554,222	563,075	285,401	297,683	309,865
Total securities	89,710	81,439	57,482	59,586	64,924
of which, derivatives	58,075	48,725	23,867	23,857	27,129
Net loans to customers	133,135	135,265	126,479	125,528	127,988
Other assets	(274,094)	(272,766)	2,821	2,993	3,245
Total assets	502,973	507,013	472,183	485,790	506,022
Liabilities					
Interbank liabilities	24,004	19,837	5,990	8,220	14,899
Senior debt	415,200	422,574	406,290	418,581	436,260
Derivatives	24,650	21,585	17,509	12,518	9,204
Deposits from customers	9,624	11,634	9,886	12,303	10,131
Subordinated debt	300	200	-	-	-
Other liabilities	3,995	4,128	3,766	3,853	4,166
Total liabilities	477,773	479,958	443,441	455,475	474,660
Ordinary equity	25,200	27,055	28,742	30,315	31,362
Equity hybrids	-	-	-	-	-
Minority interests	-	-	-	-	-
Total liabilities and equity	502,973	507,013	472,183	485,790	506,022
Core tier 1/common equity tier 1 capital	24,090	25,890	27,347	28,278	29,526
Income statement summary (EUR m)					
Net interest income	2,601	2,610	2,393	2,228	2,347
Net fee & commission income	257	257	303	362	499
Net trading income	478	349	194	428	(16)
Other income	148	123	20	27	61
Operating income	3,484	3,339	2,910	3,045	2,891
Operating expenses	1,136	1,199	1,240	1,408	1,304
Pre-provision income	2,348	2,140	1,670	1,637	1,587
Credit and other financial impairments	23	160	209	3	173
Other impairments	-	-	7	10	24
Non-recurring income	NA	NA	-	-	-
Non-recurring expense	NA	NA	-	-	-
Pre-tax profit	2,302	1,980	1,453	1,623	1,391
Income from discontinued operations	-	-	-	-	-
Income tax expense	130	(21)	26	(13)	23
Other after-tax Items	-	-	-	-	-
Net profit attributable to minority interests	-	-	-	-	-
Net profit attributable to parent	2,171	2,002	1,427	1,636	1,367

Source: SNL, Scope Ratings

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III. Appendix: Selected Financial Information – Kreditanstalt für Wiederaufbau (KfW)

	2015Y	2016Y	2017Y	2018Y	2019Y
Funding and liquidity	<u>'</u>				
Net loans/ deposits (%)	NA	NA	1571.0%	1088.9%	1365.8%
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 (%)	26.5%	26.7%	26.8%	25.8%	25.3%
Problem loans/ gross customer loans (%)	0.8%	0.7%	0.7%	13.5%	13.4%
Loan loss reserves/ problem loans (%)	137.4%	151.2%	148.1%	7.9%	8.2%
Net loan growth (%)	12.6%	1.6%	-6.5%	-0.8%	2.0%
Problem loans/ tangible equity & reserves (%)	4.3%	3.4%	2.9%	54.6%	53.2%
Asset growth (%)	2.8%	0.8%	-6.9%	2.9%	4.2%
Earnings and profitability					
Net interest margin (%)	NA	NA	0.4%	0.5%	0.5%
Net interest income/ average RWAs (%)	1.9%	2.1%	1.9%	1.6%	1.7%
Net interest income/ operating income (%)	74.7%	78.2%	82.2%	73.2%	81.2%
Net fees & commissions/ operating income (%)	7.4%	7.7%	10.4%	11.9%	17.3%
Cost/ income ratio (%)	32.6%	35.9%	42.6%	46.2%	45.1%
Operating expenses/ average RWAs (%)	0.8%	1.0%	1.0%	1.0%	0.9%
Pre-impairment operating profit/ average RWAs (%)	1.7%	1.7%	1.3%	1.2%	1.1%
Impairment on financial assets / pre-impairment income (%)	1.0%	7.5%	12.5%	0.2%	10.9%
Loan loss provision/ average gross loans (%)	0.0%	0.1%	0.2%	0.0%	0.1%
Pre-tax profit/ average RWAs (%)	1.7%	1.6%	1.2%	1.2%	1.0%
Return on average assets (%)	0.4%	0.4%	0.3%	0.3%	0.3%
Return on average RWAs (%)	1.6%	1.6%	1.1%	1.2%	1.0%
Return on average equity (%)	9.1%	7.7%	5.1%	5.6%	4.4%
Capital and risk protection					
Common equity tier 1 ratio (%, fully loaded)	NA	NA	NA	NA	NA
Common equity tier 1 ratio (%, transitional)	18.3%	22.3%	20.6%	20.1%	21.3%
Tier 1 capital ratio (%, transitional)	18.3%	22.3%	20.6%	20.1%	21.3%
Total capital ratio (%, transitional)	18.4%	22.3%	20.6%	20.1%	21.3%
Leverage ratio (%)	NA	NA	NA	NA	NA
Asset risk intensity (RWAs/ total assets, %)	26.2%	22.9%	28.2%	29.0%	27.4%
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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