Kreditanstalt für Wiederaufbau (KfW) Issuer Rating Report

SCOPE AAA STABLE

Overview

Scope Ratings has a current issuer rating and senior unsecured debt ratings of AAA, as well as a short-term debt rating of S-1+, all with a Stable Outlook, to Kreditanstalt für Wiederaufbau (KfW). The ratings are driven by the strong and explicit links between KfW and the Federal Republic of Germany, rated AAA with a Stable Outlook.

Highlights

- KfW benefits from an explicit and direct statutory guarantee and an institutional liability (Anstaltslast) from the Federal Republic of Germany. These guarantees fully align the credit risk of the institution with that of the sovereign.
- KfW is Germany's national promotional bank, majority owned by the Federal Republic of Germany. According to its statutory mission, KfW supports the economic and policy objectives of the federal government, particularly focusing its promotional activity on the following areas: climate change and the environment, globalisation, digitalisation and innovation, and social change.
- The ratings also reflect KfW's specific funding model: KfW is almost entirely wholesale-funded as is not permitted to accept deposits. However, the institution has enjoyed continuous access to global capital markets, with a comparatively lower cost of funding and broad currency diversification.
- KfW carries out its activities primarily by on-lending to banks, which results in a high and concentrated exposure to the financial sector. However, KfW has so far maintained a conservative risk profile and, despite being exempt from the direct application of banking supervision regulations, complies with significant parts of bank regulatory law, in particular capital and risk management requirements.

Rating drivers (summary)

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

- KfW's explicit and direct statutory guarantee and institutional liability from the Federal Republic of Germany
- Prudent approach ensuring the ability to fulfil its promotional mandate, including compliance with capital and risk management requirements
- High and concentrated exposure to the financial sector due to its mission and on-lending business model
- Reliance on capital markets for funding, although market access is very good and sustainable

Ratings & Outlook

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

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

Lead Analyst

Dierk Brandenburg
d.brandenburg@scoperatings.com

Scope Ratings GmbH

2 Angel Square
Suite 301
UK-London EC1V 1NY

Phone +44 20 3457 0444

Scope Ratings GmbH

Lennéstraße 5
10785 Berlin

Phone +49 30 27891 0
Fax +49 30 27891 100

info@scoperatings.com
www.scoperatings.com

Bloomberg: SCOP

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:

Materially decreased support from the Federal Republic of Germany. However, this would entail amendments to various laws and regulations including the KfW law. We view this scenario as very unlikely for the foreseeable future due to the clearly defined public mission and important economic-development role of KfW.

Material change in Germany's credit fundamentals with a subsequent negative rating action would equally affect KfW's rating.

Rating drivers (details)

KfW's explicit and direct statutory guarantee and institutional liability from the German state

Guarantees on KfW are specific to the institution…

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.

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 into by KfW, and obligations of third parties expressly guaranteed by KfW. Under the statutory guarantee, if KfW fails to make any payment required with respect to securities issued by KfW or under KfW's guarantee, the Federal Republic will be liable for that payment as and when it becomes 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 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.

On a case-by-case basis, the Federal government directly mandates KfW to acquire assets on behalf of the German federal government. For example, KfW provided a EUR 15bn loan to the Greek government in 2011 and owns several stakes in industrial companies. Risks related to such mandated operations reside with the federal government and are covered by specific guarantees.

…and do not include legally independent subsidiaries

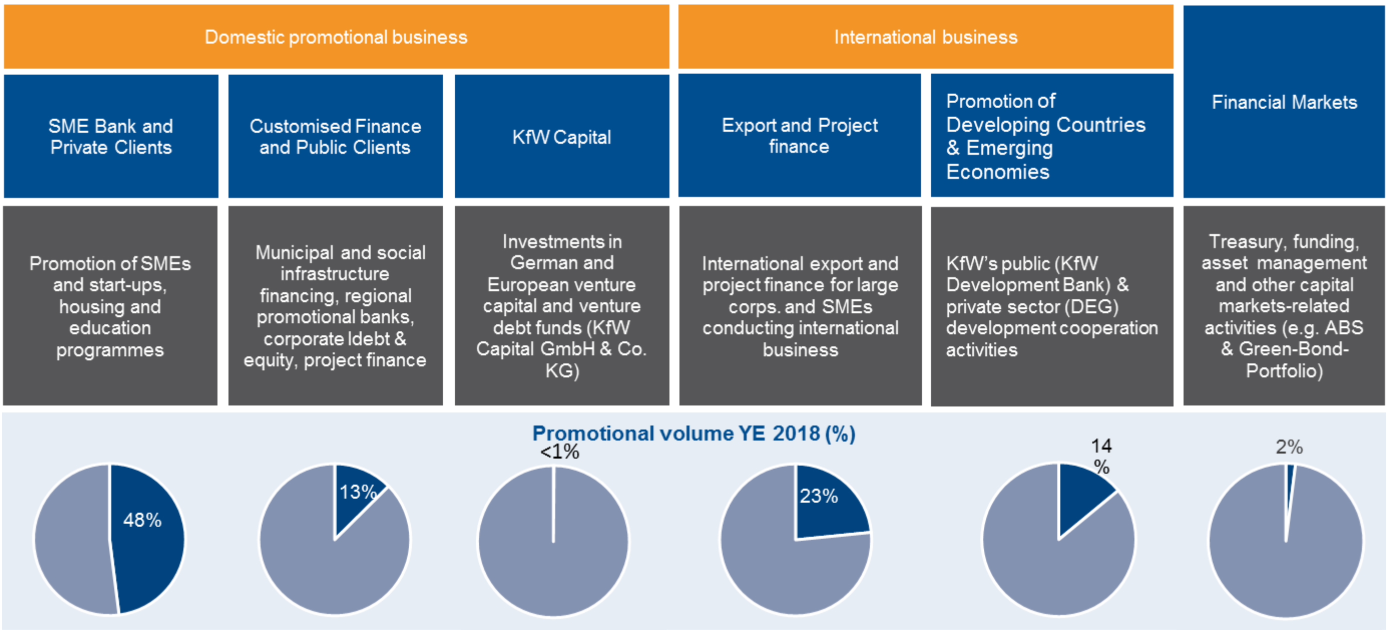
In a formal understanding established in March 2002, the European Commission confirmed that KfW's promotional activities will continue to benefit from Anstaltslast and the statutory guarantee from the Federal Republic. However, the institution must separate these activities from its commercial business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

Since 2008, KfW IPEX-Bank has been operating the export and project finance business as a wholly owned legally independent subsidiary. However, KfW continues to fund IPEX-Bank only at market rates and cannot extend to the institution any benefits arising from Anstaltslast or the guarantee from the German state.

Besides IPEX-Bank, KfW group has a second main operating subsidiary 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, making EUR 2bn available for the financing of high-tech companies in the coming years.

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

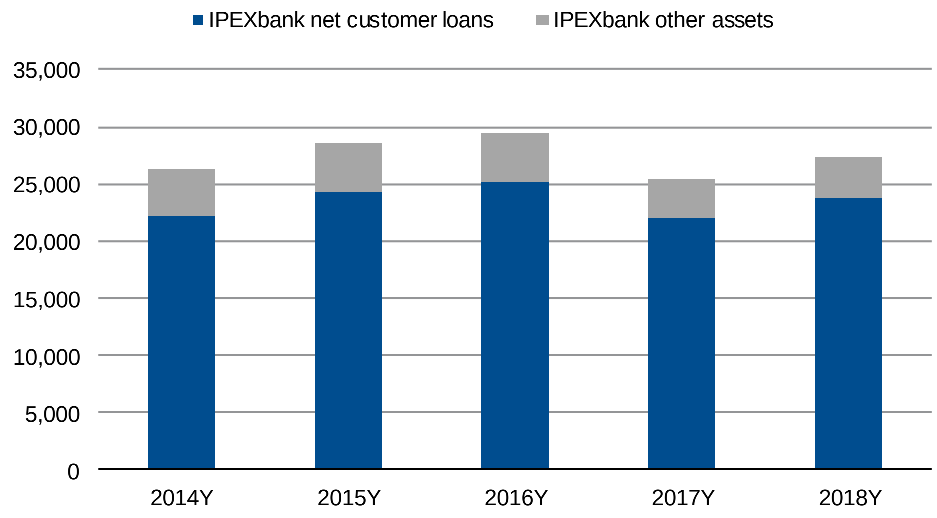
Prudent approach ensuring the ability to fulfil its promotional mandate, including compliance with capital and risk management requirements

Supervision mostly in line with general financial institutions

KfW is not considered a 'credit institution' or 'financial services institution' under the German Banking Act or relevant EU directives and regulations. However, since 2016 bank regulatory provisions apply to KfW. 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.

As an independent banking subsidiary KfW IPEX Bank could eventually come under direct ECB supervision incl. the stress test. At year-end 2018, IPEX Bank had a balance sheet of EUR 27bn and for the time being is likely to remain below the EUR 30bn limit that could potentially bring the entity under the ECB's jurisdiction (see figure 2).

Figure 2: IPEX Bank Assets (in EUR mn)



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, credit risk measurement, risk-control processes, IT systems and, most recently, a money laundering audit in Q4 2018. KfW's has yet to obtain full approval to calculate its minimum capital requirements for credit risk based on the internal ratings-based approach, which is expected in 2022.

It is our understanding that the results of the examinations were satisfying overall, although some findings related to IT, internal auditing and operational risk-management resulted in a very conservative requirement of 2.75%. Management expects to reduce this over time by improving internal processes and systems.

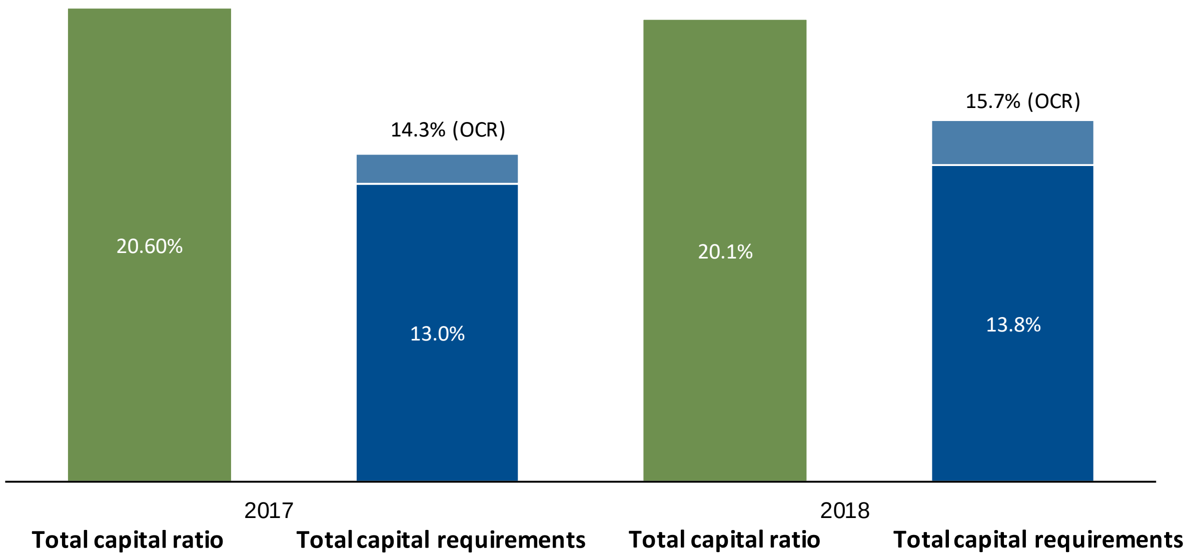
The finalisation of Basel 3 will bring further significant challenges from 2022 especially with regard to the less favourable regulatory treatment of collateral for KfW's very large domestic promotion business, where KfW passes its funds to banks against pledges that allow KfW to recourse to the underlying 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.

The overall capital requirement was set at 15.7% for end-2018. Since Q1 2019, here are additional charges from the phase-in of the remaining capital conservation buffer (62.5 bps) and a new systemic risk buffer (33bps in 2019, further 67 bps between 2020-2021).

Strong capital levels further supported by profit retention

As of YE 2018, KfW reported a 20.1% total capital ratio, composed almost entirely of Core Equity Tier 1 capital. This leaves the bank with a comfortable buffer above its minimum requirements. KfW does not publish a leverage ratio but with a ratio of equity to assets of more than 6% it should be well above the EU's regulatory minimum.

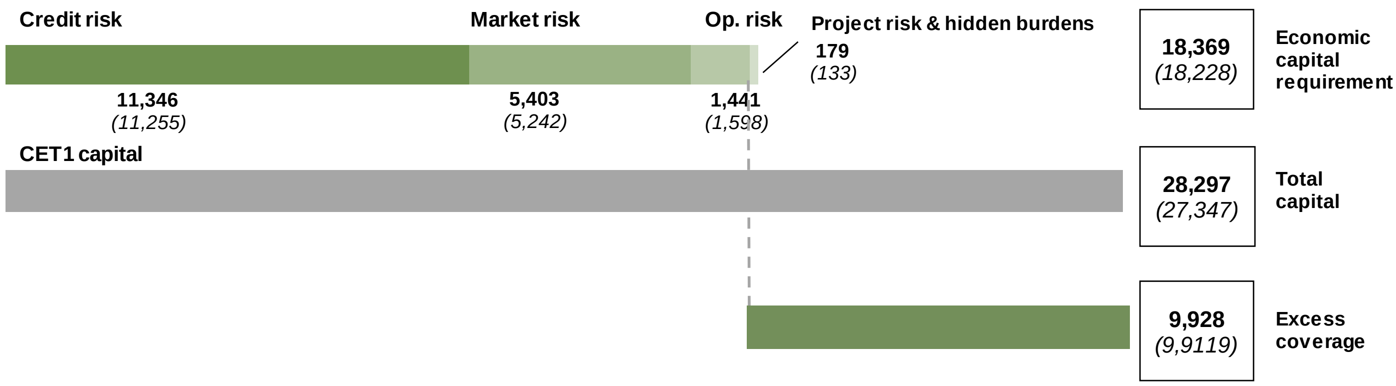
Figure 3: KfW capital requirements for 2017 and 2018 versus reported capital ratios



Source: Company data, Scope Ratings

In addition to complying with regulatory requirements, KfW also has a particular focus on its economic risk-bearing capacity based on an internal capital model (Figure 3). Calibrated to a very high 99.99% solvency standard, which is above the level required by regulators, the model suggests the bank has significantly more excess capital (9.9bn) than the excess over minimum regulatory capital requirements (6.2bn).

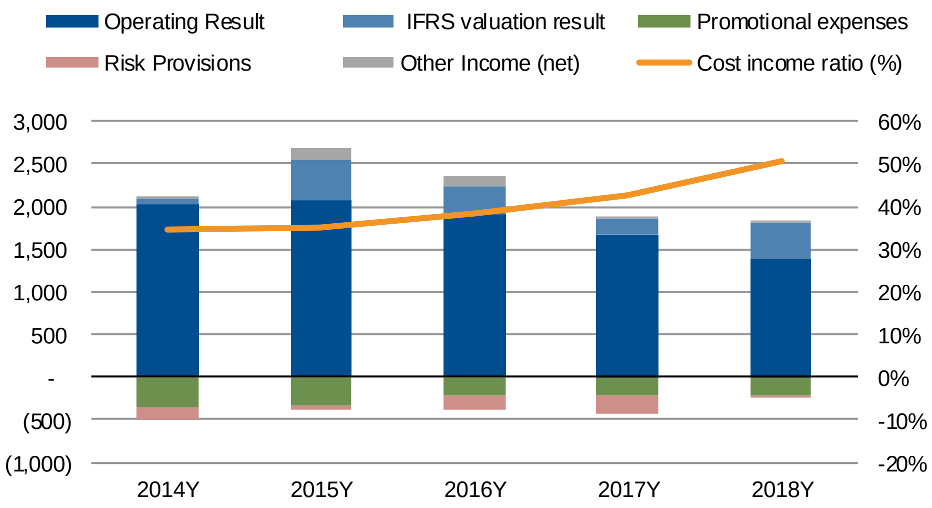
Figure 4: KfW economic risk-bearing capacity at YE 2018 (YE 2017) with a 99.99% confidence level (in EUR m)



Source: Company data, Scope Ratings

The capital base is supported further through steady internal capital generation. As a promotional bank, KfW does not seek to maximise profits. However, the institution does aim for an overall level of profitability that strengthens its equity base, in order to support its promotional activities (Figure 5). KfW is also prohibited under the KfW law from distributing profits; instead, they are allocated to statutory reserves and separately reportable reserves.

Figure 5: Earnings Position (in EUR mn)



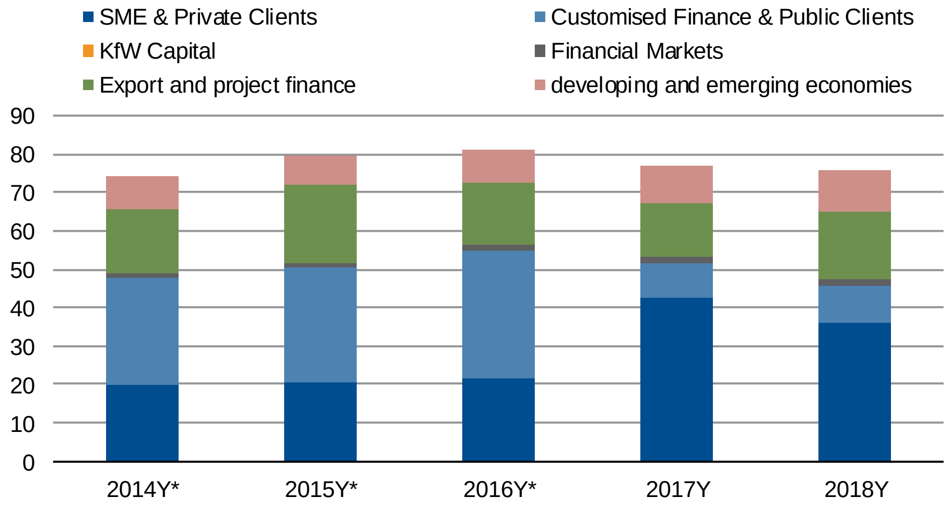
Source: Company data, Scope Ratings

New business volumes have been weak and below management targets in 2018 due to the very good liquidity position of its borrowers that reduces demand for its product. While volumes in the international business were up thanks to large project financings, the domestic business declined sharply due to weak demand from SMEs and private clients (figure 6).

Management does not expect the situation to improve in 2019, not a least due to persistent low interest rates and the anticipated slow-down in the domestic economy that is likely to reduce demand further. The 2019 profit forecast of EUR 800mn (excl. valuation effects) is below the EUR 1bn strategic objective. New business volume is nevertheless planned slightly higher at EUR 78bn in expectation of a strong take-up of a new housing subsidy (“Baukindergeld”).

Against this backdrop, cost have been on the rise for several years now due to ongoing investment into IT and regulatory expenses. The cost income ratio deteriorated to 48% as a result. While this is still a very good number compared to most German banks, management has started a modest restructuring initiative so that cost plateau out and the cost income ratio improves over time. The administrative budget for 2019 is EUR 1.37bn and the cost income ratio is expected to improve towards 46% this year.

Figure 6: Promotional business volume (in EUR bn)

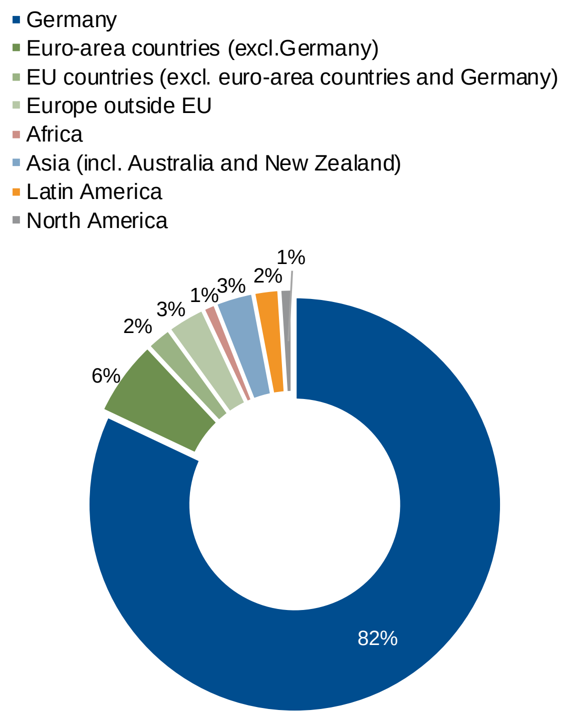


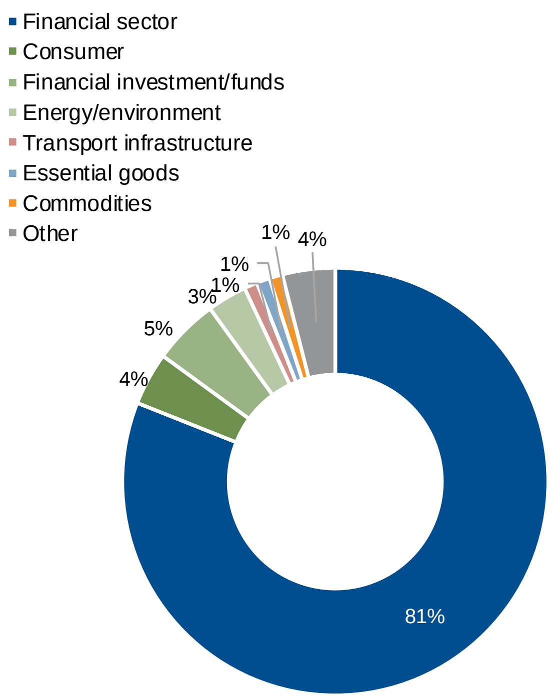
* from 2017 private clients are reported together with SME instead of public clients
Source: Company data, Scope Ratings

High and concentrated exposure to the financial sector due to its mission and on-lending business model

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 7: Economic capital requirements by region and sector (YE 2018, EUR 18.4bn)





Source: Company data, Scope Ratings

In its domestic business, KfW lends to commercial banks, as well as Landesbanken and 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.

Credit quality is sound. As of year-end 2018, KfW reported EUR 16.6bn stage 3 loans under IFRS 9 but a large part of these exposures is directly covered by federal guarantees (incl. 15bn for Greece) and credit insurance. Including risk mitigation, the net position in stage 3 assets was only EUR 725mn at end-2018. Loan loss reserves were EU 1.6bn at end-2018, of which EUR 1bn were allocated to stage 3 assets. KfW only took a negligible amount of loan provisions in 2018 (EUR 3mn after 209mn in 2017).

Reliance on capital markets for funding, although market access is very good and sustainable

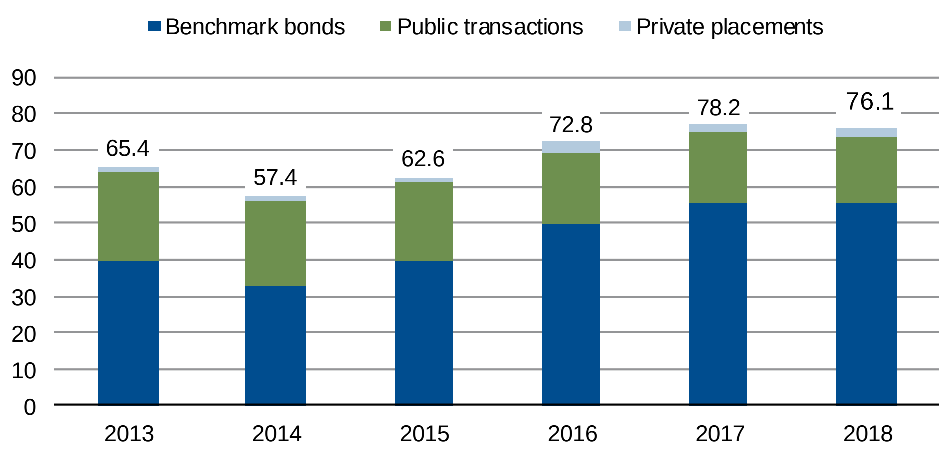
A large, steady capital market participant with a globally diversified and relatively stable investor base

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 2018. 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 2018, KfW had EUR 35bn of ECP and USD 6.8bn of USCP outstanding.

Each year, KfW determines its overall term-funding requirement based on the expected level of activities to be financed. Over the past five years, KfW has targeted between EUR 57bn and EUR 80bn of annual issuance volumes (figure 8). After raising EUR 60.7bn by July 2019, KfW affirmed its annual target at 80bn in line with previous years.

Figure 8: 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 88% 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. The ECB can purchase up to 1/3 of any domestic EUR issuance under its QE programme (PSPP). While the ECB reduced its net purchases to zero for now, it remains committed to reinvest any maturities for the time being. As of mid-2019, KfW's EUR denominated bonds traded at yields below zero for maturities up to 10 years.

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

Investors with a focus on sustainable investments are attracted to KfW as it is a promotional bank with a government mandate to improve economic, social and environmental conditions not only in Germany but globally.

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 2018, around 40% 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 19.2bn 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 sees itself 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. The targeted volume size is EUR 2.0bn, of which KfW had filled EUR 1.4bn by mid-2019
- 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.

For 2019, management intends to further strengthen the promotional bank's focus on supporting the transformation process towards a sustainable society in Germany and worldwide. A future EU taxonomy and a possible EU green bond standard could lead to adjustments in the classifications of KfW's green assets and its sustainability reporting framework in 2020.

I. Appendix: Selected financial information – KfW Group

	2014Y	2015Y	2016Y	2017Y	2018Y
Balance sheet summary (EUR m)					
Assets					
Cash and interbank assets	560,200	554,222	563,075	285,401	297,683
Total securities	87,646	89,710	81,439	57,482	59,586
of which, derivatives	56,924	58,075	48,725	23,867	23,857
Net loans to customers	118,213	133,135	135,265	126,479	125,528
Other assets	-276,987	-274,094	-272,766	2,821	2,993
Total assets	**489,072**	**502,973**	**507,013**	**472,183**	**485,790**
Liabilities					
Interbank liabilities	17,951	24,004	19,837	5,990	8,220
Senior debt	403,997	415,200	422,574	406,290	418,581
Derivatives	28,629	24,650	21,585	17,509	12,518
Deposits from customers	10,082	9,624	11,634	9,886	12,303
Subordinated debt	2,247	300	200	0	0
Other liabilities	NA	NA	NA	NA	NA
Total liabilities	**467,474**	**477,773**	**479,958**	**443,441**	**455,475**
Ordinary equity	21,598	25,200	27,055	28,742	30,315
Equity hybrids	0	0	0	0	0
Minority interests	0	0	0	0	0
Total liabilities and equity	**489,072**	**502,973**	**507,013**	**472,183**	**485,790**
Core tier 1/Common equity tier 1 capital	20,343	24,090	25,890	27,347	28,278
Income statement summary (EUR m)					
Net interest income	2,423	2,601	2,610	2,393	2,228
Net fee & commission income	307	257	257	303	362
Net trading income	69	478	349	194	428
Other income	27	148	123	20	27
Operating income	**2,826**	**3,484**	**3,339**	**2,910**	**3,045**
Operating expense	1,072	1,136	1,199	1,240	1,409
Pre-provision income	**1,754**	**2,348**	**2,140**	**1,670**	**1,636**
Credit and other financial impairments	146	23	160	209	3
Other impairments	0	0	0	7	9
Non-recurring items	NA	NA	NA	0	0
Pre-tax profit	**1,609**	**2,302**	**1,980**	**1,453**	**1,623**
Discontinued operations	0	0	0	0	0
Other after-tax Items	0	0	0	0	0
Income tax expense	95	130	-21	26	-13
Net profit attributable to minority interests	0	0	0	0	0
Net profit attributable to parent	**1,514**	**2,171**	**2,002**	**1,427**	**1,636**

Source: SNL Financials

II. Appendix: Ratios – KfW Group

	2014Y	2015Y	2016Y	2017Y	2018Y
Funding and liquidity					
Net loans/ Deposits (%)	NA	NA	NA	1571.0%	1088.9%
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 (%)	24.2%	26.5%	26.7%	26.8%	25.8%
Problem Loans/ Gross Customer Loans (%)	NA	NA	NA	0.9%	18.6%
Loan Loss Reserves/ Problem Loans (%)	NA	NA	NA	111.5%	5.7%
Net loan grow th (%)	3.8%	12.6%	1.6%	-6.5%	-0.8%
Problem Loans/ Tangible Equity & Reserves (%)	NA	NA	NA	3.9%	75.1%
Asset grow th (%)	5.2%	2.8%	0.8%	-6.9%	2.9%
Earnings and profitability					
Net interest margin (%)	NA	NA	NA	0.4%	0.5%
Net interest income/ Average RWAs (%)	2.0%	1.9%	2.1%	1.9%	1.6%
Net interest income/ Operating income (%)	85.7%	74.7%	78.2%	82.2%	73.2%
Net fees & commissions/ Operating income (%)	10.9%	7.4%	7.7%	10.4%	11.9%
Cost/ Income ratio (%)	37.9%	32.6%	35.9%	42.6%	46.3%
Operating expenses/ Average RWAs (%)	0.9%	0.8%	1.0%	1.0%	1.0%
Pre-impairment operating profit/ Average RWAs (%)	1.5%	1.7%	1.7%	1.3%	1.2%
Impairment on financial assets / Pre-impairment income (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Loan Loss Provision/ Avg Gross Loans (%)	0.1%	0.0%	0.1%	0.2%	0.0%
Pre-tax profit/ Average RWAs (%)	1.3%	1.7%	1.6%	1.2%	1.2%
Return on average assets (%)	0.3%	0.4%	0.4%	0.3%	0.3%
Return on average RWAs (%)	1.3%	1.6%	1.6%	1.1%	1.2%
Return on average equity (%)	7.1%	9.1%	7.7%	5.1%	5.6%
Capital and risk protection					
Common equity tier 1 ratio (%, fully loaded)	NA	NA	NA	NA	NA
Common equity tier 1 ratio (%, transitional)	14.1%	18.3%	22.3%	20.6%	20.1%
Tier 1 capital ratio (%, transitional)	14.1%	18.3%	22.3%	20.6%	20.1%
Total capital ratio (%, transitional)	15.1%	18.4%	22.3%	20.6%	20.1%
Leverage ratio (%)	NA	NA	NA	NA	NA
Asset risk intensity (RWAs/ Total assets, %)	29.5%	26.2%	22.9%	28.2%	29.0%
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 Financials

III. Appendix: Determination of support assumptions

Given the strong level of integration with the German Federal Government, we apply a top-down approach in accordance with our methodology for government-related entities. However, the statutory guarantee on all obligations of KfW justifies the alignment with the rating of the Federal Government of Germany (rated AAA with a Stable Outlook).

Criteria	Level of integration with government	
	High/ 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 & Control	◉ Significant public ownership	○ Mostly private ownership
Approach*	**Top-down**	

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

Scope Ratings GmbH

Headquarters Berlin

Lennéstraße 5
D-10785 Berlin

Phone +49 30 27891 0

Frankfurt am Main

Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main

Phone +49 69 66 77 389 0

Paris

1 Cour du Havre
F-75008 Paris

Phone +33 1 8288 5557

London

Suite 301
2 Angel Square
London EC1V 1NY

Phone +44 20 3457 0444

Madrid

Paseo de la Castellana 95
Edificio Torre Europa
E-28046 Madrid

Phone +34 914 186 973

Milan

Via Paleocapa 7
IT-20121 Milan

Phone +39 02 30315 814

Oslo

Haakon VII's gate 6
N-0161 Oslo

Phone +47 21 62 31 42

info@scoperatings.com
www.scoperatings.com

Disclaimer

Scope Ratings GmbH, Lennéstraße 5, 10785 Berlin, District Court for Berlin (Charlottenburg) HRB 192993 B, Managing Directors: Torsten Hinrichs, Guillaume Jolivet.