FitchRatings

Banks
Wholesale Commercial Banks
Austria

Kommunalkredit Austria AG

Ratings

Foreign Currency

Long-Term IDR	BBB-
Short-Term IDR	F3
Viability Rating	bbb-
Government Support Rating	ns

Sovereign Risk (Austria)

Long-Term Foreign-Currency IDR	AA+
Long-Term Local-Currency IDR	AA+
Country Ceiling	AAA

Outlooks

Long-Term Foreign-Currency IDR	Stable
Sovereign Long-Term Foreign-Currency IDR	Negative
Sovereign Long-Term Local-Currency IDR	Negative

Key Rating Drivers

Business Model Constrains Ratings: Kommunalkredit Austria AG's (KA) Viability Rating (VR) reflects its established niche franchise in infrastructure and energy (I&E) finance, experienced management team, improving profitability and strong asset quality record. It is underpinned by a robust risk-management framework and adequate funding and liquidity. The bank's VR is constrained by Fitch Ratings' assessment of its business profile given its small equity base relative to concentration risks in its I&E portfolio.

Well-Executed Business: The bank's concentrated but robust business model concentrates on its niche franchise in European I&E financing and on municipal finance (mainly in Austria). KA's highly experienced management team has a successful, but short, record in operating these businesses, keeping above-average returns while maintaining strong asset-quality metrics. We believe that the expected change in KA's ownership – agreed in February and likely to be closed in 3Q23 – will not result in a fundamental change of its strategy.

Uneven Risk Profile: Our assessment of the bank's risk profile incorporates its appetite for sub-investment-grade-rated, opportunistic infrastructure and project-finance transactions and declining low-risk municipal financing as a share of its total loans. KA's underwriting standards and risk-control framework have so far mitigated inherent project risks in infrastructure assets as demonstrated by a lack of loan defaults since end-2015.

Strong Asset-Quality Metrics: KA's asset quality benefits from its low-risk public-sector portfolio. The bank has not reported any non-performing loans (NPLs), despite higher-risk exposures in its I&E segment. However, given its concentrated loan book, single NPLs could sharply inflate its impaired loans ratio as its infrastructure loan book seasons. This is, however, mitigated by above-average historical recovery rates in the I&E segment and low correlation between the financed asset classes.

Above-Average Profitability: KA's profitability is a rating strength and rising due to the expansion of its new business volume in combination with limited credit losses and a competitive cost base. Our assessment also reflects concentration of revenue in the I&E segment. We believe KA can maintain healthy profitability above peers' in 2023 and 2024, but the bank's concentrated credit exposures mean that loan losses on a small number of counterparties would affect earnings materially.

Small Capital Base: KA maintains capital ratios with adequate buffers over its minimum capital requirements, and the bank has a targeted capital increase of EUR100 million from its new owner in 2023. Despite the planned injection and internal capital generation, the size of its equity base is still small relative to the concentration and business risks inherent in its I&E portfolio.

Stable Funding and Sound Liquidity: The bank's funding profile is stable, which we expect to remain intact in a rising-rate environment given KA's recourse to retail and wholesale deposits. This is supplemented by KA's capital-market activities including covered bond and senior debt issuance. KA's liquidity is sound, prudently managed, and underpinned by the bank's solid liquidity buffers.

Applicable Criteria

Bank Rating Criteria (September 2022)

Related Research

Fitch Affirms Kommunalkredit Austria at 'BBB-'; Outlook Stable (February 2023)

Analysts

Roger Schneider
+49 69 768076 242
roger.schneider@fitchratings.com

Marco Diamantini
+49 69 768076 114
marco.diamantini@fitchratings.com

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

We could downgrade the ratings if the bank incurs multiple sizeable defaults in its project-finance portfolio, leading to weaker capitalisation or if it relaxes its limits and underwriting standards to enable further opportunistic lending to higher-risk projects, more aggressive project-financing structures or junior financing.

We could also downgrade the ratings if aggressive risk-weighted assets (RWA) growth without matching capital increases results in an increasing use of KA's large exposure limit. A downgrade could also result from significant deterioration in the bank's ability to syndicate its lending commitments to a sizeable pool of external investors.

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

An upgrade of the IDR and the VR would require a materially larger and more diversified franchise and a major reduction in single-name concentration, in combination with further and material strengthening of its capital base, beyond the planned capital injection from its owners in 2023.

Other Debt and Issuer Ratings

Rating level	Rating
Senior preferred: Long term	BBB-

Source: Fitch Ratings

KA's 'F3' Short-Term IDR is the only option mapping to a 'BBB-' Long-Term IDR.

KA's long-term senior preferred (SP) debt rating is aligned with the bank's Long-Term IDR. This reflects Fitch's expectation that KA will not be subject to a minimum requirement for own funds and eligible liabilities, and that the bank will not build and maintain buffers of junior and senior non-preferred debt sustainably in excess of 10% of its RWAs.

Significant Changes from Last Review

New Ownership Supports KA's Business Profile

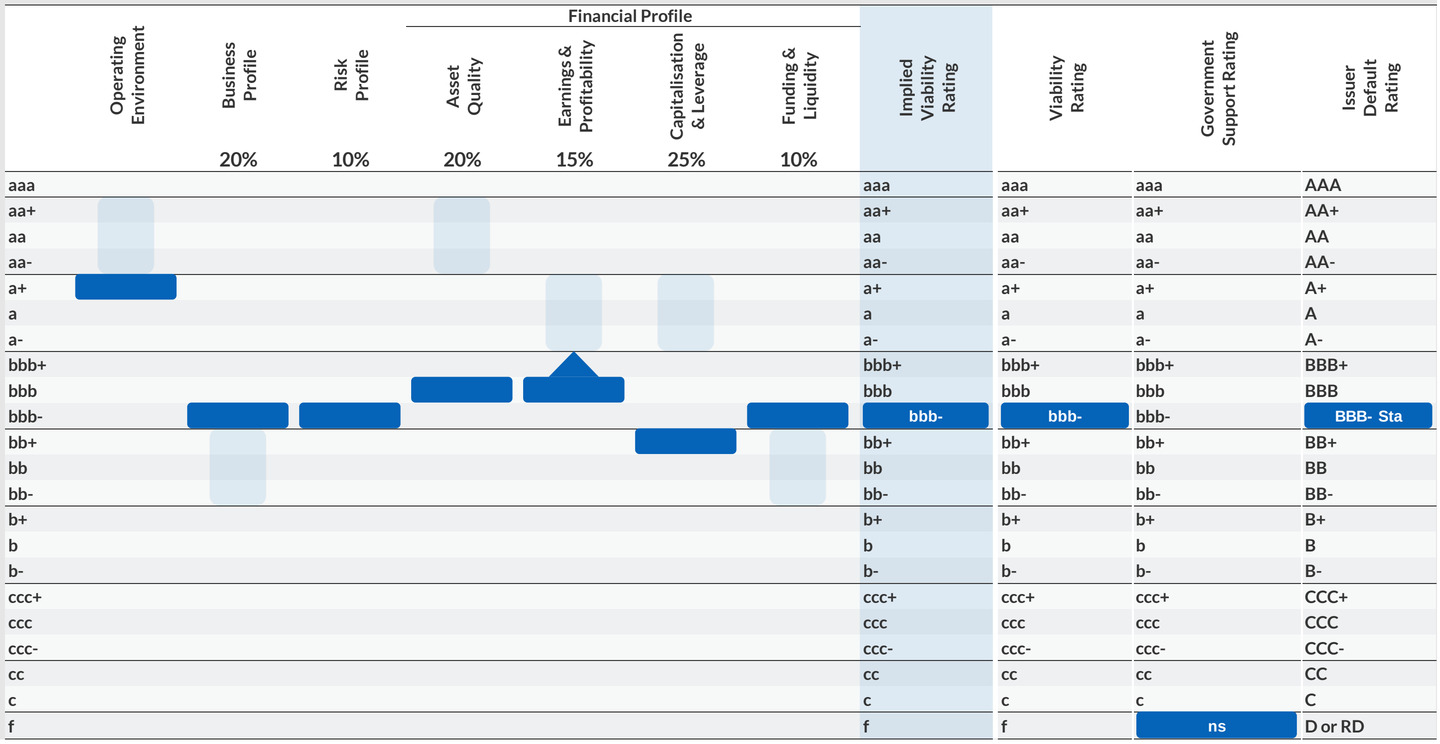
In February 2023, Altor Equity Partners, a long-term-oriented Nordic financial investor, announced its intention to acquire KA. Pending the closing of the announced transaction (likely in 3Q23), Altor will become KA's new majority shareholder with an 80% stake in the company. However, 9.9% each will still be owned by the current shareholders, private investor firm Interritus Limited, and Trinity Investments Designated Activity Company. The remaining 0.2% share is held by the Austrian Association of Municipalities. We believe that the new shareholder will benefit KA's business profile supporting the bank's strategy. Altor could also supplement KA's services, for example by extending the footprint of KA's infrastructure debt funds to Nordic investors.

Ratings Navigator

Kommunalkredit Austria AG

ESG Relevance:

Banks
Ratings Navigator



The Key Rating Driver (KRD) weightings used to determine the implied VR are shown as percentages at the top. In cases where the implied VR is adjusted upwards or downwards to arrive at the VR, the KRD associated with the adjustment reason is highlighted in red. The shaded areas indicate the benchmark-implied scores for each KRD.

VR - Adjustments to Key Rating Drivers

The operating environment score of ‘a+’ is below the ‘aa’ category implied score due to the following adjustment reason: international operations (negative).

The business profile score of ‘bbb-’ is above the ‘bb’ category implied score due to the following adjustment reason: strategy and execution (positive)

The asset quality score of ‘bbb’ is below the ‘aa’ category implied score due to the following adjustment reason: concentrations (negative)

The earnings and profitability score of ‘bbb’ is below the ‘a’ category implied score due to the following adjustment reason: revenue diversification (negative)

The capitalisation and leverage score of ‘bb+’ is below the ‘a’ category implied score due to the following adjustment reason: size (negative); internal capital generation and growth (negative)

The funding and liquidity score of ‘bbb-’ is above the ‘bb’ category implied score due to the following adjustment reason: non-deposit funding (positive)

Company Summary and Key Qualitative Factors

Business Profile

Niche I&E Lender with Seven-Year Record

Since its privatisation in 2015, KA has concentrated on transforming its business model towards the provision of advisory, structuring and financing for the I&E sectors, with a focus on energy and renewables, social, transport, and digital infrastructure finance. The bank's expertise in municipal finance, its key focus area prior to its privatisation, and the arrival of experienced senior management helped build a franchise in this segment and to expand its geographic scope. KA now provides I&E financing in 20 European countries. Its commitments in I&E have grown from EUR146 million in 2016 to around EUR2 billion in each of the past two years, equivalent to 0.6% of the European I&E market. KA ranked consistently high in I&E lenders' league tables by number of transactions in Europe, in a market dominated by large universal banks.

KA's specialist knowledge and opportunistic approach to the market supports its business generation and pricing capacity for complex transactions despite increasing competition. Its business is also supported by its advisory services to project sponsors, which allows the bank to enter transactions at an early stage. The bank aims at building long-term relationships with the sponsors to secure recurring business, but we did not identify any significant dependence on a particular sponsor.

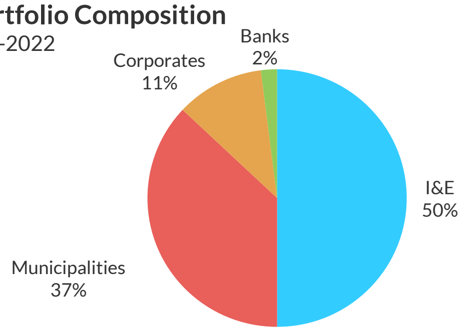
Balance-Sheet-Light Business Model

KA arranges primary market deals, which it structures and syndicates to partners, targeting final holds of EUR10 million to EUR35 million. It places and pre-places most of the syndicated volumes within 120 days from closing the transactions. We view KA's syndication pipeline as adequately granular and diversified by investor and geography.

Between mid-2018 and early 2020, KA raised over EUR350 million for its first I&E senior debt fund, Fidelio, targeted at institutional investors, for which it is the general partner, exclusive asset originator and servicer. Another fund, targeting a volume of EUR500 million, was launched in August 2022. By pre-placing part of its exposures with Fidelio, KA is able to participate in larger transactions. Fidelio is managed independently from KA, has its own investment policy and carries out independent valuations to determine eligible assets. The fund is not leveraged and does not benefit from any liquidity or credit guarantee from KA.

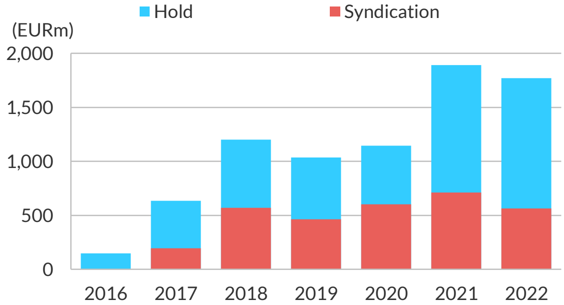
We expect KA's new business in renewables, social and digital infrastructure to continue to grow in 2023 and beyond. Its balance sheet has been contained at below EUR5 billion under local GAAP to minimise regulatory burdens by benefitting from regulatory relief applicable to small banks. However, this relief could change in the medium term given KA's targeted growth strategy.

Portfolio Composition
End-2022



Source: Fitch Ratings, KA

New Business Development



Source: Fitch Ratings, KA

Risk Profile

KA is mainly exposed to project risk in the I&E segment, which represents an increasing proportion of its loan book, and to syndication risk. Risk controls benefit from KA's highly experienced management and senior staff, on which, however, the bank's business model is highly dependent. The targeting of rapid new-business growth, planned small equity participations and selected higher-risk I&E financing in recent years indicate a risk appetite above that of peers, but the limits appear reasonable, in Fitch's view.

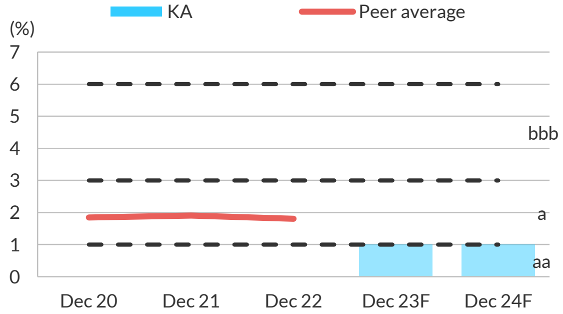
KA focuses on financing projects with resilient and proven business models and technologies, mostly during the operational phase, with low market risk. The underwriting of large tickets is mitigated by extensive project due-diligence and the application of conservative covenants. Projects in lower-rated countries involve reputable western European sponsors or financing in cooperation with development banks.

Financial Profile

Asset Quality

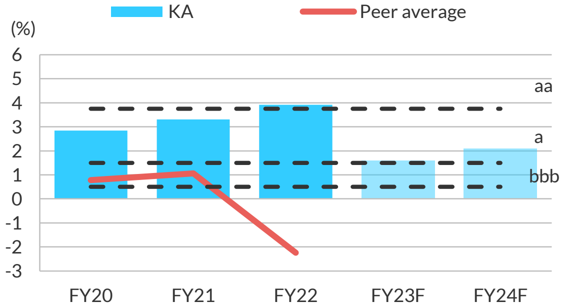
KA has maintained an impaired loan ratio of 0% since its privatisation in 2015. However, our assessment of asset quality also reflects the bank's large exposures to single borrowers and the planned reduction of its low-risk Austrian municipal loan portfolio, which made up 31% of the loan book at end-2022. The bank's I&E portfolio also has a high share of projects rated sub-investment-grade, and the majority of these loans are fairly new. Impairments are more likely to materialise once the loans season. At the same time, we expect KA's disciplined underwriting to result in a very low impaired loans ratio in the medium term. The I&E segment's above average historical recoveries should also limit credit losses.

Impaired Loans/Gross Loans



Source: Fitch Ratings, KA

Operating Profit/Risk-Weighted Assets



Source: Fitch Ratings, KA

Earnings and Profitability

KA's earnings and profitability has improved and the bank has achieved double-digit returns on equity since 2019. The bank's portion of higher margin I&E financing in its loan book is increasing as new commitments in 2022 reached EUR1.8 billion. The segment generated more than 80% of operating income in 2022.

KA's focus on medium-sized transaction with a high complexity drives its above-average net interest margins. Net interest income should also improve in 2023 and 2024 following KA's opportunistic acquisition in 2022 of a portfolio from a third-party bank.

We expect fee and commission income to increase in the coming years, along with the growth of the I&E business. Fee income comprises placement and origination fees, servicing and asset management fees through the Fidelio debt platform and advisory fees from its consulting business Kommunalkredit Public Consulting (KPC).

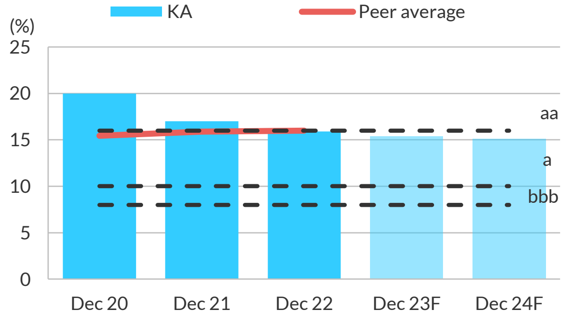
KA's cost base is rising at rates well above most peers as the bank needs to hire highly qualified staff to sustain growth and also invested in its IT infrastructure. Nevertheless, we expect KA to maintain a lean cost structure, which adequately compensates for the limited economies of scale inherent in the bank's small size.

Capital and Leverage

KA's common equity Tier 1 (CET1) ratio (end-2022: 16.9%, on a solo basis) comfortably exceeded its minimum regulatory requirement of 11.3% for Tier 1 capital. The bank's CET 1 ratio is likely to stay above its target of 15% in the foreseeable future, and the targeted capital increase in 2023 from its new owner could lift it to about 20%.

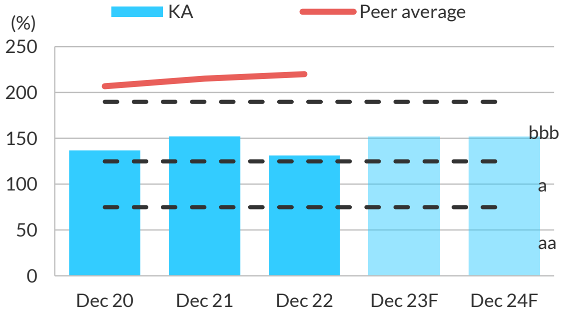
The capital injection will give KA a temporary lead over capital consumption through high RWA growth. At the same time, we believe that the level of capital will be built further in the medium term to enable KA to meet regulatory large exposure limits during a period of growth. Despite the growth in the capital base in recent years, the absolute level of capital is small in light of the bank's business risk.

CET1 Ratio



Source: Fitch Ratings, KA

Gross Loans/Customer Deposits



Source: Fitch Ratings, KA

Funding and Liquidity

KA has been able to attract online term deposits from corporates, municipalities and retail clients in Austria and in Germany, which comprised about 53% of its funding at end-2022. This has reduced the bank's loans-to-deposits ratio over the past five years. We expect KA to also focus on deposit growth in 2023, but its reliance on online deposits also means that its funding costs are rapidly increasing.

The bank has had good access to the covered bond market and has issued EUR400 million public-sector covered bonds. However, its cover pool (which consists mainly of gradually maturing Austrian municipal loans) now provides fewer opportunities for further issuance. The bank can also issue unsecured debt under its EUR2 billion debt issuance programme.

KA's assets and liabilities are well matched, avoiding broader maturity transformation, which also benefits the bank's net stable funding ratio of 129% at end-2022.

Additional Notes on Charts

The forecasts in the charts in this section reflect Fitch's forward view on the bank's core financial metrics per Fitch's *Bank Rating Criteria*. They are based on a combination of Fitch's macroeconomic forecasts, outlook at the sector level and company-specific considerations. As a result, Fitch's forecasts may materially differ from the guidance provided by the rated entity to the market.

To the extent Fitch is aware of material non-public information with respect to future events, such as planned recapitalisations or merger and acquisition activity, Fitch will not reflect these non-public future events in its published forecasts. However, when relevant, such information is considered by Fitch as part of the rating process.

Black dashed lines represent indicative quantitative ranges and implied scores for Fitch's core financial metrics for banks operating in the environments that Fitch scores in the 'a' category. Light-blue columns represent Fitch's forecasts.

Peer average includes Landesbank Saar (VR: bbb-), Triodos Bank N.V. (bbb), IKB Deutsche Industriebank AG (bbb-).

Financials

Financial Statements

	31 Dec 22	31 Dec 21	31 Dec 20	31 Dec 19
Summary income statement				
Net interest and dividend income	126	79	77	59
Net fees and commissions	30	29	29	25
Other operating income	23	24	2	3
Total operating income	179	133	107	86
Operating costs	78	65	59	56
Pre-impairment operating profit	101	67	48	30
Loan and other impairment charges	2	0	0	3
Operating profit	99	67	48	27
Other non-operating items (net)	n.a.	n.a.	n.a.	n.a.
Tax	21	18	12	-2
Net income	78	49	36	30
Other comprehensive income	-27	-10	-20	-1
Fitch comprehensive income	51	39	16	29
Summary balance sheet				
Assets				
Gross loans	2,789	2,603	2,428	2,689
- Of which impaired	n.a.	0	0	0
Loan loss allowances	6	4	4	5
Net loans	2,783	2,599	2,423	2,685
Interbank	103	129	153	106
Derivatives	201	130	140	188
Other securities and earning assets	998	996	863	817
Total earning assets	4,086	3,853	3,579	3,796
Cash and due from banks	503	543	809	463
Other assets	39	31	35	47
Total assets	4,628	4,428	4,423	4,305
Liabilities				
Customer deposits	2,126	1,710	1,773	1,393
Interbank and other short-term funding	157	481	520	487
Other long-term funding	1,572	1,582	1,509	1,825
Trading liabilities and derivatives	199	169	223	220
Total funding and derivatives	4,054	3,942	4,025	3,924
Other liabilities	103	49	39	38
Preference shares and hybrid capital	62	62	n.a.	n.a.
Total equity	410	376	359	343
Total liabilities and equity	4,628	4,428	4,423	4,305
Exchange rate	USD1 = EUR0.93756	USD1 = EUR0.884173	USD1 = EUR0.821963	USD1 = EUR0.89015

Source: Fitch Ratings, Fitch Solutions, Kommunalkredit AG

Key Ratios

	31 Dec 22	31 Dec 21	31 Dec 20	31 Dec 19
Ratios (annualised as appropriate)				
Profitability				
Operating profit/risk-weighted assets	3.9	3.3	2.8	1.6
Net interest income/average earning assets	3.2	2.1	2.1	1.6
Non-interest expense/gross revenue	43.6	50.0	55.1	65.4
Net income/average equity	20.3	13.3	10.4	9.2
Asset quality				
Impaired loans ratio	0.0.	0.0	0.0	0.0
Growth in gross loans	7.2	7.2	-9.7	9.9
Loan impairment charges/average gross loans	0.1	0.0	0.0	0.1
Capitalisation				
Common equity Tier 1 ratio	15.9	17.0	20.0	18.4
Tangible common equity/tangible assets	8.7	8.5	8.0	7.6
Basel leverage ratio	n.a.	8.5	8.4	7.9
Net impaired loans/common equity Tier	n.a.	-1.3	-1.3	-1.5
Funding and liquidity				
Gross loans/customer deposits	131.2	152.2	137.0	193.1
Liquidity coverage ratio	348.0	735.0	420.6	765.5
Customer deposits/total non-equity funding	54.3	44.6	46.6	37.6
Net stable funding ratio	129.0	122.0	117.5	111.9

Source: Fitch Ratings, Fitch Solutions, Kommunalkredit AG

Support Assessment

Commercial Banks: Government Support	
Typical D-SIB GSR for sovereign's rating level (assuming high propensity)	a+ to a-
Actual jurisdiction D-SIB GSR	ns
Government Support Rating	ns
Government ability to support D-SIBs	
Sovereign Rating	AA+/ Negative
Size of banking system	Neutral
Structure of banking system	Neutral
Sovereign financial flexibility (for rating level)	Neutral
Government propensity to support D-SIBs	
Resolution legislation	Negative
Support stance	Neutral
Government propensity to support bank	
Systemic importance	Negative
Liability structure	Negative
Ownership	Negative

The colours indicate the weighting of each KRD in the assessment.
Higher influence Moderate influence Lower influence

The government support rating reflects KA's lack of systemic importance and our view that the EU's resolution framework is likely to require senior creditors participating in losses, if necessary, instead or ahead of a bank receiving sovereign support. The IDRs do not factor in any support from KA's owners either, because Fitch generally considers that support from financial investors, while possible, cannot be relied upon.

Environmental, Social and Governance Considerations

Overall ESG

5	
4	
3	
2	
1	

How relevant are E, S and G issues to the overall credit rating?

5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

Environmental (E)

General Issues	Score	Impact	Sector-Specific Issues	Reference	E Scale
GHG Emissions & Air Quality	1		n.a.	n.a.	5
Energy Management	1		n.a.	n.a.	4
Water & Wastewater Management	1		n.a.	n.a.	3
Waste & Hazardous Materials Management; Ecological Impacts	1		n.a.	n.a.	2
Exposure to Environmental Impacts	2		Impact of extreme weather events on assets and/or operations and corresponding risk appetite & management; catastrophe risk; credit concentrations	Business Profile (incl. Management & governance); Risk Profile; Asset Quality	1

Social (S)

General Issues	Score	Impact	Sector-Specific Issues	Reference	S Scale
Human Rights, Community Relations, Access & Affordability	2		Services for underbanked and underserved communities: SME and community development programs; financial literacy programs	Business Profile (incl. Management & governance); Risk Profile	5
Customer Welfare - Fair Messaging, Privacy & Data Security	3		Compliance risks including fair lending practices, mis-selling, repossession/foreclosure practices, consumer data protection (data security)	Operating Environment; Business Profile (incl. Management & governance); Risk Profile	4
Labor Relations & Practices	2		Impact of labor negotiations, including board/employee compensation and composition	Business Profile (incl. Management & governance)	3
Employee Wellbeing	1		n.a.	n.a.	2
Exposure to Social Impacts	2		Shift in social or consumer preferences as a result of an institution's social positions, or social and/or political disapproval of core banking practices	Business Profile (incl. Management & governance); Financial Profile	1

Governance (G)

General Issues	Score	Impact	Sector-Specific Issues	Reference	G Scale
Management Strategy	3		Operational implementation of strategy	Business Profile (incl. Management & governance)	5
Governance Structure	3		Board independence and effectiveness; ownership concentration; protection of creditor/stakeholder rights; legal /compliance risks; business continuity; key person risk; related party transactions	Business Profile (incl. Management & governance); Earnings & Profitability; Capitalisation & Leverage	4
Group Structure	3		Organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership	Business Profile (incl. Management & governance)	3
Financial Transparency	3		Quality and frequency of financial reporting and auditing processes	Business Profile (incl. Management & governance)	2
					1

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

DISCLAIMER & DISCLOSURES

All Fitch Ratings (Fitch) credit ratings are subject to certain limitations and disclaimers. Please read these limitations and disclaimers by following this link: https://www.fitchratings.com/understandingcreditratings. In addition, the following https://www.fitchratings.com/rating-definitions-document details Fitch's rating definitions for each rating scale and rating categories, including definitions relating to default. Published ratings, criteria, and methodologies are available from this site at all times. Fitch's code of conduct, confidentiality, conflicts of interest, affiliate firewall, compliance, and other relevant policies and procedures are also available from the Code of Conduct section of this site. Directors and shareholders' relevant interests are available at https://www.fitchratings.com/site/regulatory. Fitch may have provided another permissible or ancillary service to the rated entity or its related third parties. Details of permissible or ancillary service(s) for which the lead analyst is based in an ESMA- or FCA-registered Fitch Ratings company (or branch of such a company) can be found on the entity summary page for this issuer on the Fitch Ratings website.

In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third- party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US$1,000 to US$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US$10,000 to US$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001.

Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the "NRSRO"). While certain of the NRSRO's credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see https://www.fitchratings.com/site/regulatory), other credit rating subsidiaries are not listed on Form NRSRO (the "non-NRSROs") and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.