Fitch Ratings

Banks
Germany

Sparkassen-Finanzgruppe (Sparkassen)

Key Rating Drivers

Mutual Support Drives Ratings: The Issuer Default Ratings (IDRs) of the 323 savings banks rated as part of Sparkassen-Finanzgruppe (SFG) are group ratings based on mutual support. SFG is not a legal entity but a banking network whose cohesion rests on a mutual support scheme. Based on Annex 4 of Fitch Ratings' criteria for banking structures backed by mutual support schemes, SFG's IDRs apply to each member bank, and we assign a Viability Rating (VR) to SFG, but not to the individual savings banks.

Rating Headroom in Pandemic: SFG entered the economic downturn from a position of relative strength, given its leading domestic retail and SME franchise, granular, sound credit exposures, as well as strong capitalisation, liquidity and deposit-driven funding. We expect SFG's profitability to moderate in the coming years due to the prolonged decline in net interest margins, but to remain considerably higher than the German sector average.

Pandemic Drives Negative Outlook: In April 2020, we revised to Negative from Stable the Outlook on SFG's Long-Term IDR due to the economic disruption caused by the coronavirus crisis and the likely negative implications for SFG's earnings and asset quality. The ultimate impact on SFG's financial profile will depend on the effectiveness of the government's support programmes, the duration of the crisis, and the speed and strength of the recovery.

Capitalisation Remains Rating Strength: SFG's capitalisation is much stronger than the German banking sector average and reflects savings banks' consistently high profit retention. SFG's Common Equity Tier 1 capital ratio decreased slightly to 16% at end-2019 as risk-weighted assets (RWAs) inflation, driven by strong loan growth, outpaced profit retention. The group's leverage ratio of 8.5% at end-2019 is very strong.

Asset Quality to Weaken Moderately: We estimate, based on non-performing loan (NPL) ratios reported by a sample of larger individual savings banks, that SFG's (non-reported) NPL ratio was stable in 2019, while the group booked moderate loan impairment charges (LICs) of EUR600 million. We expect moderate asset quality deterioration over the next two years, primarily in SME lending and in the much smaller but cyclical unsecured consumer loan book.

Manageable Landesbanken Risks: SFG's ratings factor in contingent risks from the savings banks' exposure to the Landesbanken through equity stakes and funding. These risks remain manageable, even though the current challenging operating environment is weakening Landesbanken, especially those undergoing significant restructuring.

Rating Sensitivities

Unexpectedly High Credit Losses: SFG is more resilient amid the impact of the coronavirus crisis than the overall banking sector. However, we could downgrade the group's ratings if economic disruption intensifies, making a swift recovery from 2021 less likely. In this event, SFG's ratings could come under pressure from lower revenues and, more importantly, unexpectedly high credit losses if asset quality weakens beyond our base case assumptions.

Outlook Revision Hinges on Recovery: We could revise the Outlook on SFG's Long-Term IDR to Stable if the impact of the COVID-19 disruption on SFG's asset quality and profitability are contained. This implies a swift economic recovery in line with Fitch's base case expectations.

Group Cohesion: The ratings are sensitive to Fitch's reassessment of SFG's relatively weak cohesion, which drives its Environmental, Social and Governance (ESG) relevance score of '4'.

Ratings

Issuer	
Long-Term IDR	A+
Short-Term IDR	F1+
Viability Rating	a+
Support Rating	5
Support Rating Floor	No Floor
Sovereign Risk	
Long-Term Foreign-Currency IDR	AAA
Long-Term Local-Currency IDR	AAA
Country Ceiling	AAA

Outlooks

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

Applicable Criteria

Bank Rating Criteria (February 2020)

Related Research

German Banks' Weaknesses Exposed as Economic Outlook Worsens (April 2020)

Fitch Affirms Sparkassen-Finanzgruppe at 'A+'; Outlook Negative (August 2020)

Analysts

Markus Glabach
+49 69 768076 195
markus.glabach@fitchratings.com

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

Debt Rating Classes

Rating level	Rating
Long-term deposit rating	A+
Short-term deposit ratings	F1+

Source: Fitch Ratings

Deposit Ratings Aligned with IDRs to Reflect Lack of Debt Resolution Buffers

The savings banks' deposit ratings are aligned with SFG's IDRs due to the banks' absence of material resolution debt buffers that would provide their depositors with additional protection in a resolution. We do not assign a deposit rating to SFG as it is not a legal entity.

We define SFG as consisting of the savings banks only. Each savings bank is predominantly deposit-funded and regulated individually as a less significant institution. Consequently, the German regulator's preferred resolution strategy for savings banks consists of standard insolvency procedures in the highly unlikely event SFG's institutional protection scheme (IPS) fails to protect their viability. The savings banks therefore have no incentive to build up resolution buffers.

We exclude from our definition of SFG the Landesbanken, the savings banks' central institutions, most of which have large resolution debt buffers in their capacity as domestic systemically important banks that follow single-point-of-entry approaches and bail-in as preferred resolution strategies. Therefore, we do not expect the savings banks' depositors to benefit from the Landesbanken's debt buffers in a resolution.

Short-Term Ratings Driven by Strong Funding and Liquidity Profile

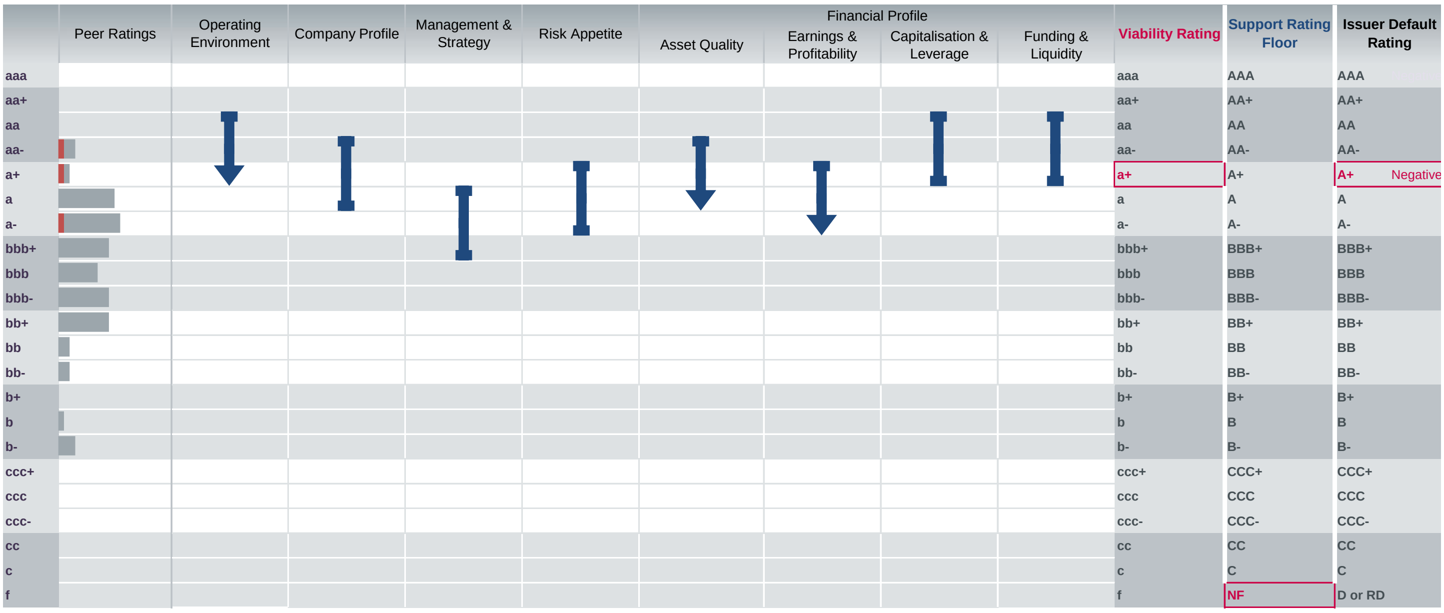
The savings banks' large and rising retail deposit base and leading collective market share in the German retail deposit market underpin SFG's strong funding and liquidity profile, which drives the group's 'aa-' score for funding and liquidity. The 'F1+' Short-Term IDR assigned to SFG and the savings banks is the higher of two options mapping to their 'A+' Long-Term IDRs.

Ratings Navigator

Sparkassen-Finanzgruppe (Sparkassen)

ESG Relevance:

Banks
Ratings Navigator



Significant Changes

Economic Outlook Rapidly Worsening

The ultimate economic and financial market implications of the coronavirus outbreak are unclear, but Fitch considers the risks to German banks' credit profiles to be clearly skewed to the downside. We revised our sector outlook for German banks to negative in December 2019 to reflect, at the peak of the credit cycle, the domestic banking sector's inability to generate adequate returns during periods of strong economic growth due to its structural weaknesses.

In addition, we lowered the operating environment score for German banks to 'aa-'/Negative from 'aa'/Stable in April 2020 as the coronavirus outbreak exacerbates banks' vulnerability to a rapid and severe deterioration of earnings and asset quality. The negative trend signals that we could lower the operating environment score further if there are signs that the German economy will suffer in the longer term from the crisis, or if the domestic banking sector is unable to restore acceptable profitability above pre-crisis levels. Such a situation would be likely to require greater pricing discipline and consolidation to remove excess capacity from the sector.

The German government has launched large support programmes to support companies and households affected by the crisis. Together with regulatory forbearance for the classification of crisis-driven NPLs, these programmes have strongly mitigated negative rating migration, RWA inflation and provisioning needs in 1H20 and will continue to do so in 2H20. However, credit quality is likely to deteriorate in 2021 as some vulnerable borrowers will not fully recover, and many corporates and SMEs are likely to emerge from the crisis with durably weaker credit profiles.

Strengthening of Institutional Protection Scheme Could Reinforce SFG's Cohesion

In 1Q20, the ECB and BaFin notified DSGV, the German savings banks association, of shortcomings identified by their audit of SFG's IPS, including notably limited transparency, unclear responsibilities, insufficient monitoring and complex decision-making processes. These findings highlight the risk that SFG's organisational weaknesses could compromise the mutual support scheme's responsiveness whenever larger members require support. The regulators also requested that SFG resolve the identified weaknesses by specific deadlines.

Bar Chart Legend

Vertical bars – VR range of Rating Factor

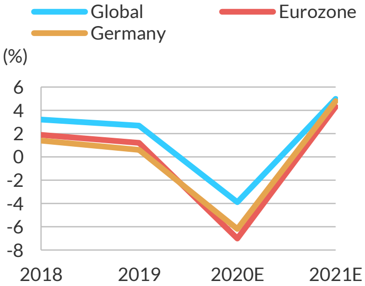
Bar Colors – Influence on final VR

- Higher influence
- Moderate influence
- Lower influence

Bar Arrows – Rating Factor Outlook

- ⇧ Positive
- ⇩ Negative
- ⇳ Evolving
- ▫ Stable

Real GDP Growth



Source: Fitch Global Economic Outlook (June 2020)

We also believe that the misalignment of Landesbanken's and savings banks' ownership, business models and risk profiles, and the resulting recurring conflicts of interest, could trigger belated reactions by SFG when providing distressed Landesbanken with necessary support.

We expect that DSGV and the regional savings banks associations will agree with the regulators on plans to address some identified shortcomings such as the lack of transparency. DSGV has also launched initiatives to increase the savings banks' adherence to common strategic projects, including digitalisation, automation and standardisation, data collection, analytics and risk management. Improving the organisation of SFG's mutual support scheme could reinforce the group's cohesion, which is significantly weaker than that of other European and German mutual groups, and is reflected in our ESG relevance score of '4' for SFG, which constrains the group's VR.

However, SFG is highly unlikely to resolve any time soon other aspects such as complex decision-making processes, sub-standard disclosure (such as the absence of audited consolidated financial statements including all saving banks), and entrenched conflicts of interest arising from the dual ownership of Landesbanken by the savings banks and the German federal states. For instance, forming a single central institution for all savings banks nationwide would strengthen SFG's governance and raise efficiency. However, exploratory talks initiated in this regard in 2019 are now on hold due to the COVID-19 crisis. Therefore, an upgrade of SFG's VR and a lowering of the ESG score are unlikely in the foreseeable future.

Brief Company Summary

Leading Nationwide Franchise and Stable Business

SFG is not a legal entity but a savings bank network, whose cohesion rests on a mutual support mechanism that the regulator also recognises as a deposit guarantee scheme. The scheme has an impeccable record of protecting all creditors by safeguarding the savings banks' viability.

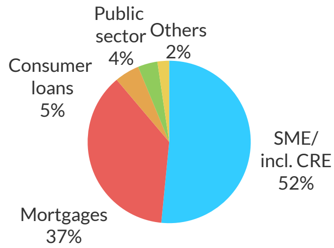
The savings banks are controlled by their respective municipalities. This ensures high client loyalty within their local communities, where the banks are socially engaged, as well as equipped with deep, performance-enhancing knowledge of their local economic environment.

SFG's stable and leading market positions rest on the savings banks' strong shared brand, strategy and marketing activities. Their business model focuses on retail and SME lending and does not rely on volatile businesses. Only a few savings banks engage in trading activities. SFG is also the largest provider of public development loans in Germany. Since the start of the COVID-19 crisis, the savings banks have been instrumental in providing SMEs with quick access to government support measures channelled through KfW.

Each savings bank is allowed to operate only within its local area, but SFG collectively has leading nationwide market shares of 35% in mortgage and SME lending and is the largest domestic deposit taker with a 30% market share at end-2019. The savings banks also closely cooperate with specialist members of the broader public-sector banking group (especially Landesbanken, insurers and asset managers). This underpins SFG's above-average market position, especially in rural areas, where competition is less intense.

Loan Book Split

(Total: EUR861bn at end-2019)



Source: Fitch Ratings

Summary Financials and Key Ratios

	31 Dec 18	31 Dec 19
Summary income statement	**(EURm)**	**(EURm)**
Net interest and dividend income	21,152	20,397
Net fees and commissions	7,694	8,168
Other operating income	-572	-69
Total operating income	28,275	28,507
Operating costs	19,290	20,136
Pre-impairment operating profit	8,985	8,371
Loan and other impairment charges	0	0
Operating profit	8,985	8,371
Other non-operating items (net)	-4,412	-4,091
Tax	2,775	2,449
Net income	1,798	1,831
Summary balance sheet		
Gross loans	823,009	861,208
Interbank	63,822	57,673
Other securities and earning assets	275,358	273,526
Total earning assets	1,176,083	1,206,572
Cash and due from banks	50,668	77,156
Other assets	15,851	16,239
Total assets	**1,242,602**	**1,299,967**
Customer deposits	941,996	987,421
Interbank and other short-term funding	127,565	135,421
Other long-term funding	17,702	17,418
Total funding	1,087,263	1,140,260
Other liabilities	40,490	39,601
Total equity	114,849	120,106
Total liabilities and equity	**1,242,602**	**1,299,967**
Ratios (annualised as appropriate)		
Profitability		
Operating profit/risk-weighted assets	1.3	1.1
Net interest income/average earning assets	1.8	1.7
Non-interest expense/gross revenue	68.2	70.6
Net income/average equity	1.6	1.6
Asset quality		
Growth in gross loans	7.1	4.7
Loan impairment charges/average gross loans	0.0	0.1
Capitalisation		
Common equity Tier 1 ratio	16.2	16.0
Tangible common equity/tangible assets	9.2	9.2
Funding and liquidity		
Loans/customer deposits	87.4	87.2
Customer deposits/funding	86.6	86.6

Source: Fitch Ratings, Fitch Solutions, SFG

Key Financial Metrics – Latest Developments

Impaired Loans Will Increase Due To Pandemic

We estimate SFG's NPL ratio in the 1.0%-1.5% range at end-2019, based on data disclosed by a representative sample of larger savings banks. This is consistent with the 1.3% reported by the European Banking Authority in its 2020 EU-wide transparency exercise for less significant institutions (which predominantly consist of German savings and cooperative banks).

SFG's strong and stable asset quality benefited from the strong German economy until the COVID-19 outbreak, as well as from the group's focus on granular domestic housing and small SME loans, its high degree of collateralised lending, and low single-name and sector concentrations. However, we expect the economic fallout from the pandemic to lead to a strong increase in the number of insolvencies in Germany in 2021 after a law suspending the obligation for companies to file for insolvency is expected to lapse at end-3Q20. We estimate this could, in our base case, roughly double SFG's NPL ratio to about 3% by end-2021 and halve its operating profit/RWAs to about 0.6% in 2021 from 1.1% in 2019.

We expect the group's NPL ratio to increase over the next two years, primarily in the higher-risk and cyclical unsecured SME and consumer lending portfolios. The comprehensive government support measures, including KfW's emergency loans channelled through the savings banks, will not fully neutralise crisis-driven credit losses, but should act as a powerful mitigating factor by containing the deterioration of corporate cash flows.

Profitability Pressured By LICs and Margins

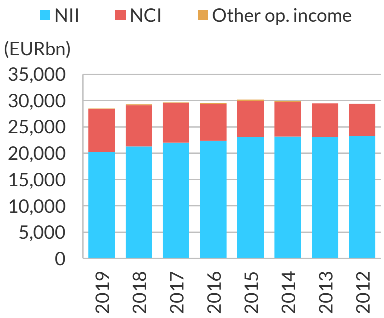
SFG's operating profit/RWAs has been so far resilient and comfortably within our expectations for an earnings & profitability score of 'a', when adjusted to neutralise the group's strongly overstated RWA density that results from the savings banks' use of the standardised approach to assess their credit risks. This level of performance represents a robust first line of defence to absorb a strong increase in LICs in 2021. Profitability moderately weakened in 2019 but, owing to the savings banks' strong market position, remains (alongside the cooperative banks) by a wide margin the strongest and most resilient of all large German banking groups.

However, we expect SFG's net interest margin to continue to erode gradually even after the current crisis. This is because the savings banks generally do not hedge interest rate risk in their banking books, while the crisis makes it likely that interest rates will remain extremely low for a long time. The uncertain economic outlook could weigh on demand from borrowers beyond 2021. This is likely to constrain SFG's ability to mitigate the pressure on its net interest margin by maintaining strong loan growth similar to the last few years.

SFG's cost-income ratio of 71% in 2019 is reasonable in light of its branch-heavy model and significantly better than the German banking sector average. Regulatory cost inflation and SFG's commitment to its dense branch network will constrain the savings potential despite its cost-cutting initiatives. Investments in big data could improve future revenues, but are likely to be dwarfed by pandemic-driven credit and valuation losses in the short-term.

We expect most savings banks to remain highly reluctant to pass on negative rates to their retail depositors in the foreseeable future. In addition, we believe that charging rising levels of commissions for already existing services will become increasingly difficult without alienating client relationships. However, sizeable potential still exists to charge increasingly negative rates on corporate borrowers. Similarly, if negative rates on retail deposits become inevitable at some point, the strength of the savings banks' franchises should allow them to manage the resulting client attrition (and protect future revenue generation) better than most large domestic competitors.

Resilient Revenue Generation



Source: Fitch Ratings

Strong Capitalisation Underpins Ratings

We revised the trend on SFG's capitalisation and leverage score to stable from negative in August 2020 as our sensitivity analyses implied robust revenues and moderate credit losses throughout the COVID-19 crisis, resulting in manageable pressure on capitalisation.

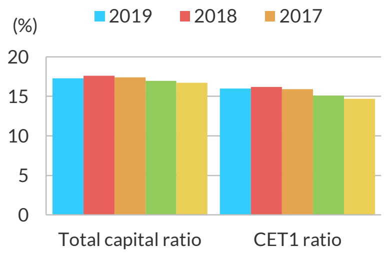
The stable trend also reflects the significant headroom available at the current score of 'aa-'. This results particularly from the fact that the saving banks' use of the standardised approach for credit-risk RWAs for all asset classes strongly limits SFG's vulnerability to rating migration and to regulatory RWA inflation. The standardised approach also strongly understates the group's Common Equity Tier 1 and total capital ratios (by up to 50%, in our view) compared with European mutual banking groups with similar risk profiles and operating in similar environments, but which make extensive use of the internal rating-based approach. SFG's leverage ratio of 8.5% at end-2019 is much stronger than those of domestic and foreign peers.

We expect SFG to protect its franchise by growing faster than the market while maintaining adequate loss-absorbing capacity as it continues to strengthen its capital reserves. The group's capitalisation benefits from the savings banks' stable record of high profit retention, which has largely offset the group's strong loan growth in recent years.

SFG is not subject to SREP and MREL requirements or resolution planning at group level. Each savings bank is subject to individual SREP requirements, which mainly address their vulnerability to unhedged interest rate risks in their banking books.

The savings banks' status as public-law institutions constrains their ability to raise capital from the controlling municipalities. Instead, capital weaknesses at individual savings banks are generally addressed by merging them into stronger neighbouring savings banks.

Consistent High Capital Generation



Source: Fitch Ratings, SFG

Stable and Granular Deposits are Main Funding Source

The savings banks' large and rising stock of retail deposits as well as their high and stable market shares underpins SFG's strong funding and liquidity profile. The group's size and resilience in previous crises, owing to its strong brand recognition and entrenched customer relationships, makes its deposit base less sensitive to market sentiment than those of smaller competitors. This has also been the case since the beginning of the pandemic, and we expect its stability to remain intact through the current crisis.

The strong increase in German households' savings rates since March 2020 has generated a large influx of deposits that is unlikely to reverse as long as economic conditions do not normalise. The savings banks' overnight deposits continue to increase as a proportion of their total deposits. However, this does not increase SFG's sensitivity to deposit outflows. This is because competitors are also subject to the same trend, but their modest profitability would constrain their ability to engage in aggressive deposit pricing to lure depositors from SFG.

SFG's client deposits rose by 5% yoy to EUR987 billion at end-2019. This represents a stable 30% of the German deposit market (38% of retail and 14% of corporate deposits). Savings banks typically have highly liquid balance sheets, as shown by SFG's high aggregated liquidity coverage ratio of 187% at end-2019. This reflects the group's comfortable ratio of highly liquid assets to deposits.

Only about 10% of savings banks (typically the larger ones) issue covered bonds, with EUR25 billion (2% of SFG's total funding) outstanding at end-2Q19. However, covered bonds offer significant potential to diversify SFG's funding, especially if preference for long-term funding increases. This is because savings banks have over EUR340 billion of potentially cover-pool eligible assets, predominantly housing loans. Savings banks with less established covered bond franchises or limited eligible assets can access SFG's asset pooling resources. Moreover, the widespread reluctance to charge negative rates to mass-retail clients makes covered bond funding increasingly attractive as the low-rate environment is likely to be prolonged.

Sovereign Support Assessment

The Support Rating and Support Rating Floor reflect our view that, due to the bank resolution framework, senior creditors cannot rely on full extraordinary state support.

Support Rating Floor:			NF
Support Factors	Positive	Neutral	Negative
Sovereign ability to support system			
Size of banking system relative to economy			✓
Size of potential problem	✓		
Structure of banking system		✓	
Liability structure of banking system		✓	
Sovereign financial flexibility (for rating level)	✓		
Sovereign propensity to support system			
Resolution legislation with senior debt bail-in			✓
Track record of banking sector support		✓	
Government statements of support			✓
Sovereign propensity to support bank			
Systemic importance		✓	
Liability structure of bank	✓		
Ownership		✓	
Specifics of bank failure		✓	

Environmental, Social and Governance Considerations

SFG has an ESG Relevance Score of '4' for Group Structure in contrast to a typical relevance score of '3' for comparable banks. This reflects our view that SFG is one of the least cohesive groups to which Fitch assigns group ratings. SFG does not produce consolidated financial accounts and its aggregated risk reporting is less advanced than other European mutual support banking groups rated by Fitch. This means that ESG issues are credit relevant to the issuer, but not a key rating driver by itself. However, the score has a moderate negative impact on the rating in combination with other factors. The score also reflects the often lengthy and complex decision making process of the group and limited enforcement rights, because SFG is not a consolidated legal entity.

Except for the matters discussed above, the highest level of ESG credit relevance, if present, is a score of 3. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity(ies), either due to their nature or to the way in which they are being managed by the entity(ies). For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Credit-Relevant ESG Derivation

Sparkassen-Finanzgruppe (Sparkassen) has 1 ESG rating driver and 4 ESG potential rating drivers

- Sparkassen-Finanzgruppe (Sparkassen) has exposure to organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership which, in combination with other factors, impacts the rating.
- Sparkassen-Finanzgruppe (Sparkassen) has exposure to compliance risks including fair lending practices, mis-selling, repossession/foreclosure practices, consumer data protection (data security) but this has very low impact on the rating.
- Sparkassen-Finanzgruppe (Sparkassen) has exposure to operational implementation of strategy but this has very low impact on the rating.
- Sparkassen-Finanzgruppe (Sparkassen) has exposure to board independence and effectiveness; ownership concentration; protection of creditor/stakeholder rights; legal /compliance risks; business continuity; key person risk; related party transactions but this has very low impact on the rating.
- Sparkassen-Finanzgruppe (Sparkassen) has exposure to quality and frequency of financial reporting and auditing processes but this has very low impact on the rating.

			Overall ESG Scale
key driver	0	issues	5
driver	1	issues	4
potential driver	4	issues	3
not a rating driver	4	issues	2
	5	issues	1

Environmental (E)

General Issues	E Score	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	Company Profile; Management & Strategy; Risk Appetite; Asset Quality	1

Social (S)

General Issues	S Score	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	Company Profile; Management & Strategy; Risk Appetite	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; Company Profile; Management & Strategy; Risk Appetite	4
Labor Relations & Practices	2	Impact of labor negotiations, including board/employee compensation and composition	Company Profile; Management & Strategy	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	Company Profile; Financial Profile	1

Governance (G)

General Issues	G Score	Sector-Specific Issues	Reference	G Scale
Management Strategy	3	Operational implementation of strategy	Management & Strategy	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	Management & Strategy; Earnings & Profitability; Capitalisation & Leverage	4
Group Structure	4	Organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership	Company Profile	3
Financial Transparency	3	Quality and frequency of financial reporting and auditing processes	Management & Strategy	2
				1

How to Read This Page
ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.

The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

The Credit-Relevant ESG Derivation table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Priniciples for Responsible Investing (PRI) and the Sustainability Accounting Standards Board(SASB).

Sector references in the scale definitions below refer to Sector as displayed in the Sector Details box on page 1 of the navigator.

CREDIT-RELEVANT ESG SCALE

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.

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.