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CREDIT OPINION

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Update

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Sparkassen-Finanzgruppe

Update to credit analysis

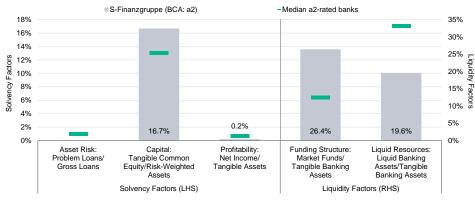
Summary

We assign a Aa2(stable) corporate family rating (CFR) to <u>Sparkassen-Finanzgruppe</u>'s (S-Finanzgruppe). We further assign an a2 Baseline Credit Assessment (BCA) and Adjusted BCA to S-Finanzgruppe.

S-Finanzgruppe's Aa2 CFR reflects the group's a2 BCA and Adjusted BCA; two notches of rating uplift from our Advanced Loss Given Failure (LGF) analysis, which results in a very low loss given failure; and one notch of rating uplift from our assumption of moderate government support, reflecting S-Finanzgruppe's scale and high relevance to Germany's financial stability.

S-Finanzgruppe's a2 BCA reflects its strong asset quality; very strong and stable capitalization; as well as defensive, deposit-focused funding profile and sufficient balance-sheet liquidity. The BCA also takes into account the group's overall robustness given its leading market shares in Germany and our expectation of moderate economic growth in Germany, which should allow S-Finanzgruppe to protect is asset quality, maintain its capitalisation and address some of its profitability challenges over time such that it remains at least at the current, moderate level.

Exhibit 1 Rating Scorecard - Key financial ratios



The financial ratios for S-Finanzgruppe are as of year-end 2020. Source: Moody's Financial Metrics™ In assigning the BCA and CFR to S-Finanzgruppe, we assess the group as if it operates as a single entity. This approach considers group member institutions' cohesion, solidarity — particularly among the savings banks — as well as their high level of co-operation. However, the members of S-Finanzgruppe do not constitute a single economic entity that functions with centralised management and control at the group level. The BCA and CFR apply only to the creditworthiness of the group as a whole rather than to individual members of the group.

Credit strengths

- » Strong capitalisation, which provides ample buffer for unexpected shocks
- » Good asset quality, benefitting from focus on German borrowers and reduction of concentration risks stemming from individual Landesbanks
- » Defensive funding profile, which benefits from prime access to German savings from granular retail and SME deposits
- » Cohesion among member institutions of S-Finanzgruppe, codified in the institutional protection schemes (IPS)

Credit challenges

- » Despite being supported by low credit risk costs, profitability lags level of international peers, is challenged by the low interest rate environment and a stubbornly high cost base.
- » Moderate tail risks from German Landesbanks' international exposures persists and mainly relate to commercial real estate lending.

Outlook

The stable outlook reflects our expectation that the German savings banks sector and its member banks will maintain stable fundamental credit strength with broadly unchanged key financial ratios over the outlook horizon of 12-18 months.

Factors that could lead to an upgrade

» Upward pressure on S-Finanzgruppe's CFR could only arise from upward pressure on its BCA, driven by significantly and sustainably higher profitability of the sector, together with improvement in the group's asset-risk profile through reduced concentration risks and sustained capital levels.

Factors that could lead to a downgrade

- » Downward pressure on S-Finanzgruppe's CFR could originate from pressure on its BCA, in particular if the group's overall solvency is weakened by its low profitability, or if Germany's <u>Strong+ Macro Profile</u> were to be deteriorate.
- » A support scenario for a number of member banks, in which necessary funds significantly compress the sector's overall capitalisation, could also exert downward pressure on the rating.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Sparkassen-Finanzgruppe (Consolidated Financials) [1]

12-20 ²	12-19 ²	12-18 ²	12-17 ²	12-16 ²	CAGR/Avg. ³
2,383.3	2,273.5	2,178.2	2,129.5	2,118.8	3.0 ⁴
2,916.1	2,552.0	2,490.0	2,557.1	2,234.8	6.9 ⁴
177.9	173.0	167.8	161.5	157.9	3.0 ⁴
217.7	194.2	191.9	193.9	166.6	6.9 ⁴
16.7	16.4	16.6	16.7	16.4	16.6 ⁵
1.2	1.3	1.3	1.4	1.5	1.3 ⁵
1.0	1.0	1.1	1.3	1.4	1.2 ⁵
0.2	0.3	0.2	0.4	0.3	0.35
71.3	73.5	70.8	68.7	66.8	70.2 ⁵
26.4	25.7	26.6	26.8	27.1	26.5 ⁵
19.6	17.2	17.1	16.8	14.9	17.1 ⁵
94.9	97.4	98.0	97.5	99.5	97.5 ⁵
	2,383.3 2,916.1 177.9 217.7 16.7 1.2 1.0 0.2 71.3 26.4 19.6	2,383.3 2,273.5 2,916.1 2,552.0 177.9 173.0 217.7 194.2 16.7 16.4 1.2 1.3 1.0 1.0 0.2 0.3 71.3 73.5 26.4 25.7 19.6 17.2	2,383.32,273.52,178.22,916.12,552.02,490.0177.9173.0167.8217.7194.2191.916.716.416.61.21.31.31.01.01.10.20.30.271.373.570.826.425.726.619.617.217.1	2,383.3 2,273.5 2,178.2 2,129.5 2,916.1 2,552.0 2,490.0 2,557.1 177.9 173.0 167.8 161.5 217.7 194.2 191.9 193.9 16.7 16.4 16.6 16.7 1.2 1.3 1.3 1.4 1.0 1.0 1.1 1.3 0.2 0.3 0.2 0.4 71.3 73.5 70.8 68.7 26.4 25.7 26.6 26.8 19.6 17.2 17.1 16.8	2,383.32,273.52,178.22,129.52,118.82,916.12,552.02,490.02,557.12,234.8177.9173.0167.8161.5157.9217.7194.2191.9193.9166.616.716.416.616.716.41.21.31.31.41.51.01.01.11.31.40.20.30.20.40.371.373.570.868.766.826.425.726.626.827.119.617.217.116.814.9

[-] Further to the publication of our revised methodology in July 2021, for issuers that have "high trigger" additional Tier 1 instruments outstanding, not all ratios included in this report reflect the change in treatment of these instruments. [1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; LOCAL GAAP. [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. Simple average of Basel III periods. [6] Simple average of periods for the latest accounting regime. Sources: Moody's Investors Service and company filings

Profile

S-Finanzgruppe is a German financial institutions group that consists of more than 500 independent enterprises, including 367savings banks¹, as well as five Landesbanks, including <u>Bayerische Landesbank</u> (BayernLB, Aa3 stable/Aa3 stable, baa2)², <u>Landesbank Baden-Wuerttemberg</u> (LBBW, Aa3 stable/Aa3 stable, baa2), <u>Landesbank Berlin AG</u> (LBB, Aa2 RUR/Aa2 RUR, baa2), <u>Landesbank Hessen-Thueringen GZ</u> (Helaba, Aa3 stable/Aa3 stable, baa2), <u>Landesbank Saar</u> (SaarLB, A1 stable/A1 stable, ba1), <u>Norddeutsche Landesbank</u> <u>GZ</u> (NORD/LB, A3 stable/Aa3 stable, ba3), the asset manager <u>DekaBank Deutsche Girozentrale</u> (DekaBank, Aa2 stable/Aa2 stable, baa2), eight Landesbausparkassen (regional building societies) and nine primary insurance groups, and a number of other financial service companies.

As Germany's largest banking group, S-Finanzgruppe commands a market share for lending to domestic corporates and selfemployed individuals of around 40%, as well as around 35% for mortgage lending to private households. As of 31 December 2020, S-Finanzgruppe reported total aggregated assets of €2.38 trillion (2019: €2.27 trillion, 2018: €2.18 trillion), of which around 61% relate to the group of savings banks (2019: 59%, 2018: 58%).

The German Savings Banks Association (*Deutscher Sparkassen- und Giroverband*, DSGV) is the umbrella organisation of S-Finanzgruppe. Entities of S-Finanzgruppe are independent and managed on a decentralised basis. Most of the group's savings banks are institutions incorporated under public law and operated under municipal trusteeship.

For more information, please see S-Finanzgruppe's <u>issuer profile</u>, the <u>German Banking System Profile</u>, as well as the <u>update</u> on the German banking system, published on 25 March 2021, and our comprehensive analysis that concludes <u>German banks need large cost</u> <u>cuts to stay profitable</u>, published on 25 January 2021.

Recent developments

Based on DSGV numbers announced on 16 March, the savings banks reported a preliminary pre-tax profit of €4.6 billion for 2021, up from €4.0 billion as of 2020 and a slightly stronger net-income of €1.8 billion for 2021 (up from €1.5 billion in 2020). The improved result was primarily driven by lower risk costs, loan-loss provisions declined to a very low €0.1 billion in 2021, down from €1.3 billion in 2020, given the post-pandemic economic recovery in Germany. Net income to total assets recovered slightly to above 0.3% in 2021, however, is still significantly below pre-pandemic levels. ³

Despite ongoing pressure on its net interest income (NII), which declined by 3.3% to €19.2 billion in 2021 (€19.6 billion in 2020), revenues stabilized, as the increased net fee and commission income of €9.1 billion (€8.5 billion in 2020) more than offset the decline

in interest income, for the first time; this also reduces the savings banks' dependence on NII, which made up 67% of total revenues (70% in 2020 and 77% in 2015).

Administrative expenses remained stable, though the savings banks were able to reduce personnel expenses slightly, also reflected in an improved cost-income ratio of 66.2%. In 2021, savings banks' booked credit provisions of around €0.1 billion (2020: 1.3 billion), impaired financial securities by €0.6 billion (2020: €0.6 billion) and added to capital reserves around €3.0 billion, compared with €2.8 billion in 2020.

Outstanding loans increased further by 5.5% to €955 billion in 2021 (2020: €906 billion), with the 7% growth in retail mortgage lending only marginally outpacing corporate lending growth of 5.5%. Corporate loans accounted for €496 billion of the loan book in 2021 (2020: €470 billion), the retail lending business including mortgages for €406 billion in 2021 (2020: €383 billion).

Capital ratios, however, for the savings banks declined slightly for the first time in years. Core capital decreased to 15.6% in 2021, down from 16.4% in 2020. Total capital declined to 16.7% in 2021, down from 17.6%, with growth in risk-weighted assets exceeding capital generation.

Detailed credit considerations

Sound capital provides an ample buffer for unexpected shocks

Our assigned aa2 Capital score for S-Finanzgruppe reflects the group's strong capitalisation, which provides a substantial buffer against a severe economic downturn. Our assessment takes into account additional capital-equivalent reserves and limitations around capital fungibility within members of the group. As of year-end 2020, S-Finanzgruppe's reported Tier 1 ratio was 16.5%, compared with 16.1% in 2019 and 15.9% in 2018. The moderate increase reflects around 6% higher equity over that period, including the addition to capital reserves (*Fonds für allgemeine Bankrisiken*), which overcompensates for the rising risk-weighted assets (RWA) driven by loan growth.

The German savings banks have ample capital to absorb considerable adverse market developments. In addition to disclosed and required capital, German savings banks have additional fully taxed reserves, which are undisclosed and exist in accordance with local accounting rules (Handelgesetzbuch, HGB). We do not expect any material increase in capital ratios for S-Finanzgruppe in 2022 and beyond, reflecting moderately deteriorating asset quality and lending growth, which leads to rising RWA, while capital generation from earnings remains only moderate at best.

Savings banks usually apply the standard approach, which leads to higher RWA compared with the internal ratings-based approaches, which prevail at Landesbanks. For savings banks, we estimate that RWA accounted for more than 50% of assets, while the average ratio for Landesbanks was around 30% as of year-end 2020. At the same time, the savings banks' preliminary Common Equity Tier 1 (CET1) ratio was 15.6% as of year-end 2021 (2020: 16.4%).⁴ This compares with an average⁵ CET1 ratio of Landesbanks of 14.7% at half-year 2021 (2020: 14.8%), which ranged within 13.2%-15.4% at that time.

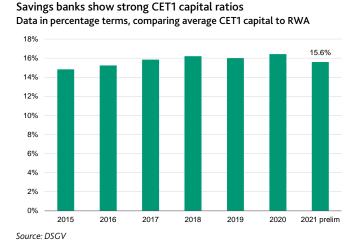
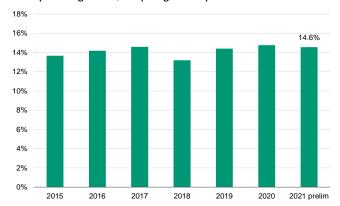


Exhibit 4 Landesbanks' average CET1 ratio is broadly stable Data in percentage terms, comparing CET1 capital to RWA

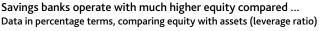


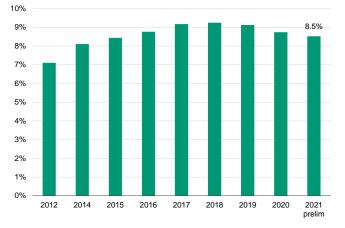
This group includes BayernLB, DekaBank, Helaba, LBBW, NORD/LB and SaarLB, similar to Deutsche Bundesbank's breakdown of "Landesbanks". Source: Company reports

Exhibit 3

Our favourable capital assessment for S-Finanzgruppe also takes into account the savings banks' high leverage ratio, because equity accounted for 8.5% of their assets as of year-end 2021 (2020: 8.7%, 2019: 9.1%). This compares with 5.4% for the group of Landesbanks (2020: 5.3%, 2019: 5.4%), which is broadly stable at around 5% since 2013 but is significantly lower than for savings banks.

Exhibit 5





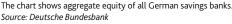
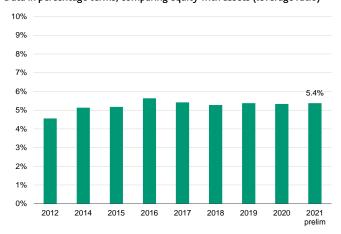


Exhibit 6 ... with the aggregate equity of Landesbanks* Data in percentage terms, comparing equity with assets (leverage ratio)



This group includes BayernLB, DekaBank, Helaba, LBBW, NORD/LB, and SaarLB. Source: Deutsche Bundesbank

Our capital assessment for S-Finanzgruppe considers certain advantages, which arise from their mutual support, codified in group's set of several IPS.⁶ Member banks of S-Finanzgruppe benefit from the omission of large lending limits, as well as lower regulatory capital requirements, because intragroup exposures benefit from a 0% risk weight. Losing these sector-specific regulations, for example, triggered by the absence of support for a troubled member bank, will have negative repercussions for their capital ratios. Although we regard such a scenario unlikely, the effect would be significantly negative for creditors.

As a large, diverse group of independent financial institutions, capital cannot be freely allocated within S-Finanzgruppe, and the risk of member banks requiring support cannot be ruled out. Following the announced balance sheet cleanup and capital strengthening measures for NORD/LB, we believe that the risk profiles for all Landesbanks are better aligned with their core banking activities, rendering them more robust to event risks or adverse economic conditions.

Profitability pressure from low interest rates and the coronavirus pandemic

S-Finanzgruppe's assigned ba3 Profitability score is one notch above its initial score, the weakest individual factor that we assign to Germany's largest financial institutions group. Our assessment is based on the combined results of all member banks and reflects the challenges that savings banks and Landesbanks face from the low interest rate environment, recently compounded by the negative economic repercussions from the coronavirus pandemic, which will lead to rising credit provisions. Following the successful wind-down of non-core assets at the group's larger institutions, we believe that the absence of extraordinary losses will support S-Finanzgruppe's aggregate earnings.

Until the breakout of the pandemic, savings banks benefited from the benign economic conditions in Germany. Benign asset quality and ample loan growth helped balance declining interest margins and rising operating expenses, with the latter mostly driven by nonpersonnel related costs. Over 2018-20, savings banks' loans increased in aggregate by 17.6%. In 2020, for example, loans increased by 5.0% (2019: +4.5%), driven by 5.5% higher lending to corporates and self-employed individuals (2019: +5.4%), and 7.1% higher mortgages to private households and corporates (2019: +6.4%).² This trend continued during the first six months of 2021, with saving banks' loans growing by around 2.3% over this period.

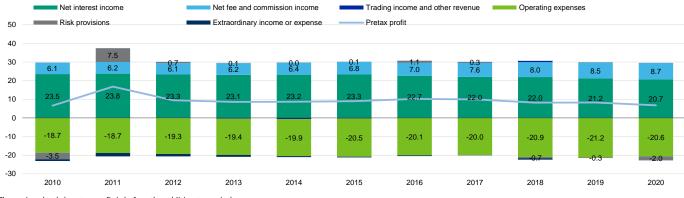
For 2022, we expect earnings pressures to persist. While the interest environment will be somewhat more favourable, the long tenor of outstanding loans will limit the positive impact on net interest income, while the uncertain operating environment could lead to rising

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risk costs. We expect the savings banks to make gradual progress in cost management and non-interest income generation. However, given their public mandate to offer financial services through an intensive branch network countrywide, we expect moderate potential for achieving sizeable cost savings. The savings banks' cost pressure is somewhat mitigated by a gradual reduction in workforce, at around 1% in 2020 and around 2.6% in 2019, as a result of natural fluctuation, a development that is comparable with the previous years.

Over the last five years, the savings banks' cost-to-income ratio deteriorated to 66.2% in 2021, from 65.5% in 2018 and 64.8% in 2016, which also reflects their rising investments in digital solutions.⁸

Exhibit 7



Savings banks reported stable pretax profit over the last decade and benefited from very benign asset quality Data in € billions

The savings banks' pretax profit is before the addition to capital reserves. Source: Deutsche Bundesbank

Pretax and net income figures published by Deutsche Bundesbank for savings banks somewhat differ from numbers disclosed by DSGV. This is mainly because the savings banks' association considers the addition to capital reserves (*Fonds für allgemeine Bankrisiken*) as provision expense, which reduces pretax profit. In contrast, the disclosures by Deutsche Bundesbank follow the breakdown of local accounting rules (HGB), where the fully taxed addition to capital reserves is reported "below the line", that is, after net income.

Based on Deutsche Bundesbank data, German savings banks reported pretax profit (before the addition to capital reserves) of €6.7 billion in 2020, compared with €8.2 billion in 2019 and €8.2 billion in 2018. The gradual reduction in earnings was driven by a decline in pre-provision income to €8.8 billion in 2020 (2019: €8.5 billion, 2018: €9.7 billion), reflecting lower net interest income of €20.7 billion (2019: €21.2 billion, 2018: €22.0 billion), balanced by slightly higher fee income of €8.7 billion (2019: €8.5 billion, 2018: €8.0 billion) and broadly stable operating expenses of €20.6 billion (2019: €21.2 billion). The weaker result for 2020 is largely driven by higher credit provisions, which increased to €2.0 billion in 2020 from €0.3 billion in 2019 (2018: €0.7 billion). In 2020, the savings banks added around €2.9 billion to capital reserves, compared with €4.4 billion in 2019 and €4.1 billion in 2018.

Since 2010, pretax profit for the group of German Landesbanks oscillated around breakeven, reflecting large swings in trading income and risk provisions, with the latter mostly driven by changing asset quality of ship loans. The sizeable reduction in revenue over the last decade from around \in 12.2 billion in 2010 to around \in 7.3 billion in 2019 reflects the reduction of assets by around 43% over the same period and a declining number of banks included in this group.⁹ During 2021, Landesbanks' assets remained stable at around \in 805 billion.

2.9

2021 prelim

5.6

2020

-2.6

2018

2019

-23

2017

-3.7

2016

Net interest income Net fee and commission income Trading income and other revenue Operating expenses Risk provisions Extraordinary income or expense Pretax profit 14 12 10 8 6 4 7.6 2 0 -2 -4 -6.3 -5.5 -5.7 -6.5 -6.4 -6.7 -6.7 -6.6 -6.9 -6.7

-1.6

2014

Exhibit 8

-6 -8

-10 -12 -14 -2.3

2010

Compared with savings banks, Landesbank's pretax profit is very low and volatile Data in € billions

-3.3

2013

Included banks are BayernLB, DekaBank, Helaba, LBBW, NORD/LB, and SaarLB. Source: Deutsche Bundesbank, Company reports

2012

2011

Based on aggregate data for S-Finanzgruppe, Germany's largest financial institutions group reported pretax profit of €4.2 billion in 2020, compared with €4.8 billion in 2019 and €3.1 billion in 2018 (2017: €5.7 billion). The lower result in 2020 reflects higher credit provisions, at €2.9 billion, compared with €0.3 billion in 2019 and €3.6 billion in 2018. The latter high level was largely because of restructuring measures that NORD/LB announced in October 2018. In 2020, the group's aggregate pre-provision income increased by around 8% to €10.9 billion from €10.2 billion in 2019 (2018: €11.3 billion).

2015

The main drivers were stable revenue, at around ≤ 38.1 billion, and moderately lower operating expenses of ≤ 27.1 billion, down 3% from 2019. Aggregate net interest and fee income for the group was broadly stable in 2020 at ≤ 27.6 billion (2019: ≤ 27.8 billion; 2018: ≤ 28.7 billion) and ≤ 9.8 billion (2019: ≤ 9.6 billion, 2018: ≤ 8.8 billion). In 2020, S-Finanzgruppe managed to reduce personnel expenses by around 2% to ≤ 16.0 billion (2019: ≤ 16.4 billion) and other administrative expenses, including regulatory charges, by around 4.6% to ≤ 11.1 billion (2019: ≤ 11.6 billion). At around 73%, S-Finanzgruppe's revenue remains highly dependent on net interest income (NII). However, because of a rising share of fee income, the group's dependence has somewhat softened, compared with an 80% NII share in 2015. During 2020, the group's aggregate net interest margin (calculated as net interest income compared with customer loans) further declined to 2.06%, compared with 2.12% in 2019 and 2.29% in 2018 (2017: 2.46%).

S-Finanzgruppe's sector efficiency metrics compare less favourably with those of its international peers, as reflected by a cost-toincome ratio of around 71% in 2020 (2019: 73%, 2018: 71%). We consider cost containment a key challenge for the group amid the low interest-rate environment and investments in digitalisation. To achieve a cost-to-income ratio similar to that of other highly rated banks or group of banks, S-Finanzgruppe needs to reduce operating expenses by around 20%, compared with its 2020 cost base.

Sound asset quality reflecting the focus of lending activities to the German economy

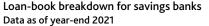
S-Finanzgruppe's Asset Risk score of a1 reflects very low risk profiles of its member savings banks and captures the business profiles of the group of Landesbanks, which has successfully and sustainably been de-risked over several years. However, as Germany's largest financial institutions group, S-Finanzgruppe needs to manage risk concentrations in export-driven industries, such as the automotive and the cyclical construction sector, which are a key feature of Germany's economic structure. Savings banks, in contrast, manage a very diversified loan book with usually low to medium-sized loan, a credit positive.

As of year-end 2021, the financially stronger savings banks accounted for around 66% of the aggregate assets of savings banks and Landesbanks, whereas a decade earlier, the financially weaker Landesbanks contributed most of combined assets. This shift towards the more resilient, primarily retail client-focused savings banks, together with the long-term de-risking and restructuring of the Landesbanks, which started after the global financial crisis, results in a significant decline in the group's asset risks, which now better reflect the economic strengths and challenges of its home market.

Between 2015 and 2021, savings banks increased the exposure to domestic corporate loans (including self-employed) from around 52.5% to around 55.2%.¹⁰ The sizeable growth in loans to these borrowers to €517 billion as of year-end 2021 (2020: €490 billion) exposes the banks to the risk of higher credit provisions under stressed economic conditions. Germany's savings banks exhibit high concentrations to residential properties, accounting for around 58% of total loans (2015: around 51%). We believe that the banks apply

conservative underwriting criteria, leading to moderate loan-to-value ratios. However, German residential real estate prices continue to accelerate, with indications of price growth outpacing fundamentals, particularly in large metropolitan areas. The savings banks' high exposure to this asset class could pose risks to asset quality and profitability, for example, if significant price corrections or rising unemployment trigger higher problem loans and thus higher loan-loss charges.

Exhibit 9



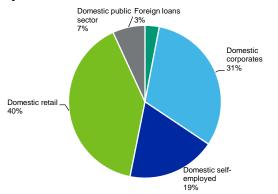
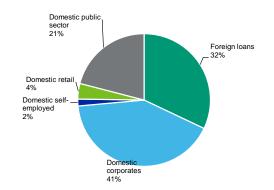
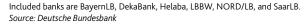


Exhibit 10 Landesbanks have sizeable foreign loans Data as of year-end 2021



The chart shows selected loan categories in accordance with the classification of Deutsche Bundesbank. Source: Deutsche Bundesbank



S-Finanzgruppe's risk profile benefits from the reduction of assets at the group of Landesbanks, which declined by around 47% to €805 billion as of year-end 2021, compared with €1.5 trillion in 2010.¹¹ While this group of banks remains exposed to asset concentration risks, reflecting commercial real estate exposures, international lending and asset-based finance activities, we believe the susceptibility to unexpected losses has significantly declined, reflecting the banks' sizeable restructuring efforts over the last years. We believe this will lead to moderate credit costs associated with the average asset quality of their largely domestic customers.

Strong funding benefiting from prime access to German depositors

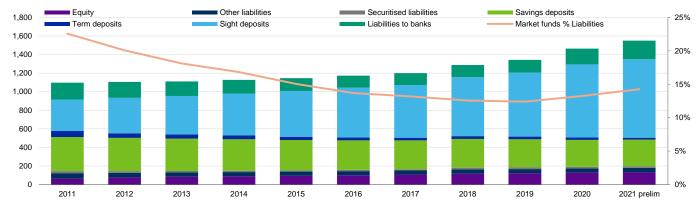
S-Finanzgruppe's credit strength is strongly supported by sizeable and well-diversified deposits. This view is reflected in our assigned a2 Funding Structure score, which is three notches above the group's baa2 initial score. The positive adjustments take into account S-Finanzgruppe's high deposit granularity, reflecting its market leadership across Germany; the significant potential of savings banks to use their substantial mortgage books for secured funding in the capital market, if needed; and the existence of sizeable covered bonds and promotional loans, provided by sovereign-related entities. We consider these latter funding sources less sensitive to credit developments and hence more reliable. However, our assessment also reflects the wholesale funding dependence for German Landesbanks.

The strong funding profile for S-Finanzgruppe is supported by the savings banks' strong market position and its perceived stability. This allows the collection of diversified and highly granular deposits. As of year-end 2021, the savings banks' aggregate deposits of \notin 1.154 trillion compared with aggregate loans of \notin 984 billion, resulting in a very favourable and gradually improving loan-to-deposit ratio of 85%, almost unchanged with year-end 2020 and somewhat more favourable than the 87% in 2015 and 88% in 2010.¹² A large portion of the savings banks' excess funding — reflecting the difference between deposits and loans — of around \notin 170 billion as of year-end 2021 (2020: \notin 169 billion, 2019: \notin 131 billion), is shared within member institutions of S-Finanzgruppe.¹³

The moderate increase in the savings banks' market fund ratio to around 14% as of year-end 2021, compared with 12.9% in 2019, largely reflects their participation in the European Central Bank's (ECB) TLTRO III program. We estimate this funding component accounted for around 4% of their assets.

Exhibit 11

Rising deposits at savings banks helped reduce their dependence on market funding Data in € billions



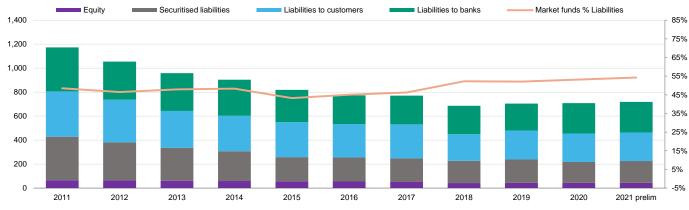
We include liabilities to banks and securitised liabilities to calculate a proxy for the savings banks' market funding dependence. Source: Deutsche Bundesbank

The savings banks' sizeable and very granular deposits support the Landesbanks' funding needs, which exhibit a high dependence on market funds. As of year-end, Landesbanks' loan-to-deposit ratio was 157%, reflecting that loans of \leq 357 billion are higher than liabilities to customers of \leq 239 billion (2019: 147%, 2018: 148%).¹⁴ Despite the Landesbanks' significant deleveraging efforts — between 2008 and 2017 their aggregate assets declined from \leq 1.7 trillion to \leq 807 billion — their relative market funding dependence remained broadly stable, as expressed by a loan-to-deposit ratio of 135%-157% over the past years.

We estimate that the favourable funding from TLTRO accounted for around 10% of German Landesbanks assets as of year-end 2020 and largely explains the moderate increase in their market fund ratio to around 56% as of 30 June 2021, compared with 52% in 2019.

Exhibit 12

Landesbanks' market funding dependence remained broadly unchanged over the last decade Data in € billions



We include liabilities to banks and securitised liabilities to calculate a proxy for the Landesbanks' market funding. Source: Deutsche Bundesbank

Sizeable liquidity supported by high-quality financial securities

S-Finanzgruppe's assigned Liquid Resources score of baa1 is one notch above the group's baa2 initial score. Our assessment considers the high quality of liquid assets and additional, ECB-eligible securities held in savings banks' held-to-maturity portfolios, balanced by asset encumbrance, which arises from issued covered bonds, repurchase (repo) activities and intragroup exposures.

S-Finanzgruppe's liquidity strongly supports our assessment of the group's favourable credit profile. As of year-end 2020, aggregate liquid assets within the group were €778 billion and included €193 billion in cash, €274 billion in claims on banks and €311 billion of financial securities (2019: €711 billion, 2018: €701 billion).¹⁵

As of year-end 2021, liquid assets at savings banks accounted for 34% of their balance sheet, stable compared with 2020 and up from around 31% in 2019, largely because of higher cash (around 12% of assets as of year-end 2021; 2019: 6%), while claims on banks (3%) and financial securities (19%) declined slightly.¹⁶ Rising loans over the last decade in combination with declining interest rates triggered a moderate, relative reduction in savings banks' liquidity until 2019 and somewhat benefited from the ECB's extraordinary liquidity provided via the long-term refinancing programs.

The savings banks' liquidity coverage ratio (LCR) was around 204% as of year-end 2020, compared with 188% in 2019 and 200% in 2018.¹⁷

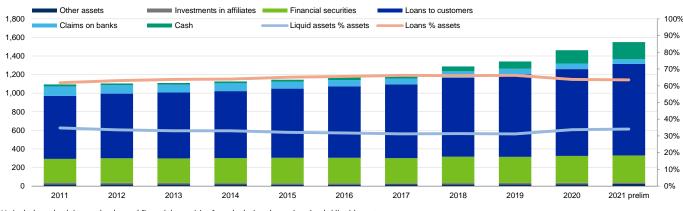


Exhibit 13 In 2021, the savings banks' liquid assets have remained stable

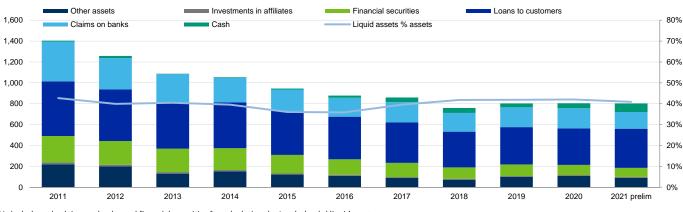
We include cash, claims on banks, and financial securities for calculating the savings banks' liquid assets. Source: Deutsche Bundesbank

As of year-end 2021, liquid assets at German Landesbanks accounted for around 41% of assets, compared with 42% both in 2020 and 2019. The ratio remained broadly stable since 2017, despite the banks' incremental TLTRO participations. This is reflected in higher cash, which represented around 10% of assets in 2021, compared with around 6% in 2020 and 4.6% in 2019. For our calculation of liquid assets for the group of Landesbank, we also include claims on banks (20%) as well as financial securities (11%).Source: Deutsche Bundesbank. Reported LCRs for Landesbanks ranged between 135% and 250% in 2021 (2019: 124% and 225%).

Exhibit 14

Compared with savings banks, Landesbanks operate with relatively larger claims on banks (light blue) and lower financial securities (light green)

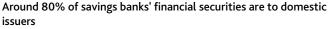
Data in € billions



We include cash, claims on banks, and financial securities for calculating the Landesbanks' liquid assets. Source: Deutsche Bundesbank

We consider the savings banks' financial securities as having very high quality, reflecting the large share of domestic issuers, including German public-sector entities. This view is supported by the lack of exposure to equities and somewhat balanced by the relatively high portion of investment funds, which we believe mostly relate to fixed-income securities.

Exhibit 15





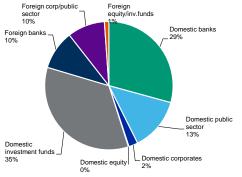
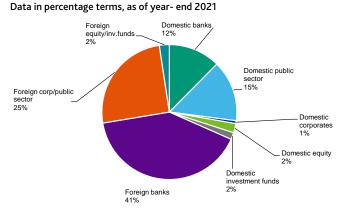


Exhibit 16

More than two-thirds of Landesbanks' financial securities are exposed to foreign issuers



This group includes BayernLB, DekaBank, Helaba, LBBW, NORD/LB, and SaarLB. Source: Deutsche Bundesbank

Source: Deutsche Bundesbank

Macro Profile of Strong +

S-Finanzgruppe's BCA is supported by its Strong + Macro Profile, which is derived from the group's weighted average credit exposures, reflecting an around 80% exposure to Germany, around 15% to the European Union, and around 5% worldwide. S-Finanzgruppe's Strong + Macro Profile matches the assigned German Macro Profile, which is largely determined by the country's very high economic, institutional and government financial strength and very low susceptibility to event risk.

ESG considerations

SPARKASSEN-FINANZGRUPPE's ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 17 ESG Credit Impact Score



For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

Source: Moody's Investors Service

Sparkassen-Finanzgruppe's ESG Credit Impact Score is neutral-to-low (**CIS-2**). This reflects the mitigating rating benefits of the entire group, which include advantages from its diversified legal and business configuration and its overall dominant domestic market position, all of which offsetting moderate governance risks. The group's corporate governance risks are largely reflective of relative weaknesses at the level of its member banks, including most Landesbanks, and represent largely subdued operational efficiency and an unambitious financial strategy particularly at the Landesbanks. Environmental and social factors have a limited impact on the bank's credit profile to date.

Exhibit 18 ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

Sparkassen-Finanzgruppe faces moderate exposure to environmental risks primarily because of its member banks' portfolio exposure to carbon transition risks. In line with its peers, Sparkassen-Finanzgruppe is facing mounting business risks and stakeholder pressure to meet broader carbon transition goals. Carbon transition risks relate mostly to the member banks' corporate loan book. In response, the member banks are actively engaging in optimising their loan portfolios towards less carbon-intensive assets, though progress varies significantly amongst members.

Social

Sparkassen-Finanzgruppe's members face high industrywide customer relations risks related to regulatory risk, litigation exposure and high compliance standards in their operations. High cyber and personal data risks are mitigated by technology solutions and organisational measures to prevent data breaches.

Governance

Sparkassen-Finangruppe's governance risks are moderate, reflecting the member banks' largely unambitious financial strategy and relatively subdued profitability and elevated cost structures, in addition to above average political representation on individual supervisory boards. Sparkassen-Finanzgruppe's decentralized structure embeds limits to central empowerment and usually requires

a lengthier debate before important strategic decisions get taken, although member banks' risk management and organisational structures are in line with industry practices. Managements' ability to address the member banks' subdued profitability remains a concern because it provides only a limited buffer against adverse developments. With regards to the composition of board of directors, political representatives of owners still play a prominent role. Germany's developed institutional framework mitigates associated governance risks.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click <u>here</u> to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

Notching for CFR

S-Finanzgruppe represents a conglomerate of diverse financial institutions in Germany. As such, it is not considered a banking group in the context of the European Capital Requirement Regulation. S-Finanzgruppe is, therefore, not a regulated group ("*Konzern*"), but all of its affiliated institutions are subject to the applicable regulation for banks or other financial institutions. As a result, the EU's Bank Recovery and Resolution Directive, which we consider to be an operational resolution regime, does not apply to S-Finanzgruppe but only to its member banking institutions individually. Thus, our CFR for S-Finanzgruppe represents the risk characteristics of a notional single class of debt assumed to fund its aggregate balance sheet.

Our Advanced LGF analysis suggests that this notional instrument would face very low losses in resolution. This results in two notches of uplift to the CFR compared with S-Finanzgruppe's BCA of a2, and hence, a Preliminary Rating Assessment of aa3.

Government support considerations

We expect a moderate probability of government support, resulting in a one-notch rating uplift for S-Finanzgruppe. Our government support assumption reflects S-Finanzgruppe's size and high relevance to Germany's financial stability.

Methodology and Scorecard

Methodology

The principal methodology we use in rating S-Finanzgruppe is the Banks rating methodology, published in July 2021.

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgement. When read in conjunction with our research, a fulsome presentation of our judgement is expressed. As a result, the output of our scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Rating methodology and scorecard factors

Exhibit 19

Sparkassen-Finanzgruppe

Macro Factors						
Weighted Macro Profile Strong +	· 100%					
Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	-	-	-	al	Quality of assets	Sector concentration
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	16.7%	aa2	\leftrightarrow	aa2	Risk-weighted capitalisation	Expected trend
Profitability						
Net Income / Tangible Assets	0.2%	b1	\leftrightarrow	ba3	Return on assets	Expected trend
Combined Solvency Score		a2		a2		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	26.4%	baa2	\leftrightarrow	a2	Market funding quality	Deposit quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	19.6%	baa2	\leftrightarrow	baa1	Quality of liquid assets	Additional liquidity resources
Combined Liquidity Score		baa2		a3		• •
Financial Profile				a2		
Qualitative Adjustments				Adjustment		
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint				Aaa		
BCA Scorecard-indicated Outcome - Range				a1 - a3		
Assigned BCA				a2		
Affiliate Support notching				0		
Adjusted BCA				a2		

Balance Sheet is not applicable.

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information. Source: Moody's Investors Service

Ratings

Exhibit 20

Category	Moody's Rating
SPARKASSEN-FINANZGRUPPE	
Outlook	Stable
Baseline Credit Assessment	a2
Adjusted Baseline Credit Assessment	a2
Corporate Family Rating -Dom Curr	Aa2
Sourco: Moodu's Investors Sonuico	

Source: Moody's Investors Service

Endnotes

1 As of 01 January 2022.

- 2 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- <u>3</u> Adjusted for reserve accumulation via provisions
- 4 Source: DSGV.
- 5 This reflects average ratio for BayernLB, DekaBank, Helaba, LBBW, NORD/LB, and SaarLB.
- 6 This scheme includes rules for mutual support within groups of banks to ensure the liquidity and solvency of their member institutions.
- 7 Source: Deutsche Bundesbank.
- 8 Source: DSGV.
- 9 Deutsche Bundesbank's group of Landesbanks included 10 banks in 2010 and 5 banks in 2022.
- <u>10</u> Source: Deutsche Bundesbank.
- 11 Source: Deutsche Bundesbank.
- 12 Source: Deutsche Bundesbank.
- 13 Source: Deutsche Bundesbank.
- 14 Source: Deutsche Bundesbank.
- 15 Source: DSGV.
- 16 Source: Deutsche Bundesbank.

17 Source: DSGV.

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