MOODY'S INVESTORS SERVICE

CREDIT OPINION

12 June 2020

Update



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Sparkassen-Finanzgruppe

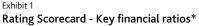
Update to credit analysis

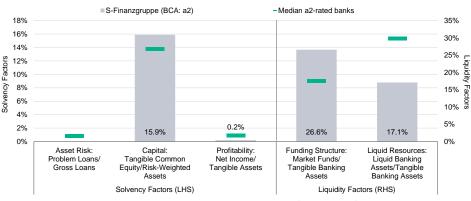
Summary

<u>Sparkassen-Finanzgruppe</u>'s (S-Finanzgruppe) Corporate Family Rating (CFR) is Aa2 (negative) and its Baseline Credit Assessment (BCA) a2. The negative outlook reflects our expectation that sustained and increasingly adverse operating conditions for banks in Germany will elevate the risk on profitability and credit quality for S-Finanzgruppe and weaken its overall financial resilience; these pressures are further amplified by the implications of the coronavirus outbreak.

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, and one notch of rating uplift from our assumption of moderate government support.

S-Finanzgruppe's a2 BCA reflects its sound asset quality, its strong and stable capitalisation, as well as its conservative, deposit-focused funding profile and sizeable liquidity. The BCA also takes into account that S-Finanzgruppe's profitability will face sustained challenges from the low interest rates, mostly pressuring member banks' revenues because of their high dependence on net interest income. Our view on the bank's BCA could change if the coronavirus credit shock led to a sustained erosion of its solvency strengths.





Note: *The capital ratio shown is S-Finanzgruppe's Tier 1 ratio at the end of 2018 (latest available) as a proxy for its TCE/CET1 ratio, which is not disclosed.

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 between 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 cohesion among member institutions of S-Finanzgruppe, codified in institutional protection schemes (IPS), and recently demonstrated by capital support provided for Norddeutsche Landesbank GZ.
- » Strong capital provides ample cushion for unexpected shocks.
- » Sizeable liquidity benefits from prime access to German depositors and balances the market funding dependence of Landesbanks.

Credit challenges

- » Profitability is under pressure from low interest rates, compounded by negative economic repercussion from the coronavirus pandemic
- » Moderate tail risks from German Landesbanks' international exposures persists and mainly relate to commercial real estate lending.

Outlook

» The negative outlook on S-Finanzgruppe's Aa2 CFR reflects our expectation that sustained low interest rates, as well as the increasingly adverse operating conditions, also associated with the coronavirus shock, will elevate the risk on the group's solvency.

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 a significantly and sustainably higher profitability of the sector together with improvements of its asset risk profile through reduced concentration risks in combination with sustained levels of capitalisation.

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 remains vulnerable because of its low profitability.
- » 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.
- » A deterioration in Germany's Strong+ macro profile could lead to downward rating pressure.

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]

	12-18 ²	12-17 ²	12-16 ²	12-15 ²	12-14 ²	CAGR/Avg. ³
Total Assets (EUR Billion)	2,178.2	2,129.5	2,118.8	2,157.7	2,251.9	(0.8) ⁴
Total Assets (USD Billion)	2,490.0	2,557.1	2,234.8	2,343.9	2,724.9	(2.2) ⁴
Net Interest Margin (%)	1.4	1.4	1.5	1.5	1.5	1.4 ⁵
PPI / Average RWA (%)	1.1	1.3	1.4	1.3	1.3	1.3 ⁶
Net Income / Tangible Assets (%)	0.2	0.4	0.3	0.3	0.2	0.3 ⁵
Cost / Income Ratio (%)	71.3	68.7	66.8	69.2	69.7	69.1 ⁵
Market Funds / Tangible Banking Assets (%)	26.6	26.8	27.1	28.4	31.1	28.0 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	17.1	16.8	14.9	15.1	16.2	16.0 ⁵
Gross Loans / Due to Customers (%)	98.0	97.5	99.5			98.3 ⁵

[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 due to scale of reported amounts. [4]Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [5]Simple average of periods presented for the latest accounting regime. [6]Simple average of Basel III periods presented.

Source: Moody's Investors Service; Company Filings

Profile

S-Finanzgruppe is a German financials institutions group that consists of more then 500 independent enterprises, including 378 savings banks¹, as well as six Landesbanks, including <u>Bayerische Landesbank</u> (BayernLB, Aa3 stable/Aa3 stable, baa2)², <u>Landesbank Baden-Wuerttemberg</u> (LBBW, Aa3 stable/Aa3 stable, baa2)³, <u>Landesbank Berlin AG</u> (LBB, Aa2 stable/Aa2 stable, baa2)⁴, <u>Landesbank Hessen-Thueringen GZ</u> (Helaba, Aa3 stable/Aa3 stable, baa2)⁵, <u>Landesbank Saar</u> (SaarLB, A1 stable/A1 stable, ba1)⁶, <u>Norddeutsche Landesbank</u> <u>GZ</u> (NORD/LB, A3 stable/A3 stable, ba3)⁷, the asset manager <u>DekaBank Deutsche Girozentrale</u> (DekaBank, Aa2 stable/Aa2 stable, baa2)⁸, eight Landesbausparkassen (regional building societies) and 11 primary insurance groups and a number of other financial service companies. Aggregate data for S-Finanzgruppe includes these entities, as well as <u>Hamburg Commercial Bank AG</u> (HCOB, Baa2 stable/Baa2 stable, ba2)⁹ which is still affiliated with the group via the institutional protection scheme (Haftungsverbund).

As Germany's largest banking group, S-Finanzgruppe commands a market share for lending to domestic corporates and self-employed of around 40%, as well as around 35% for mortgage lending to private households. As of 31 December 2018 (latest available), S-Finanzgruppe reported total aggregated assets of €2.18 trillion (2017: €2.13 trillion), of which around 60% relate to the group of savings banks.

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 issuer profile, the <u>German Banking System Profile</u>, as well as our <u>update</u> on the German banking system, published on 26 March 2020, and the more comprehensive <u>report</u> from November 2019.

Recent developments

The coronavirus will cause unprecedented shock to the global economy. The full extent of the economic downswing will be unclear for some time; however, G-20 economies will contract in 2020. We presently expect the G-20 advanced economies as a group to contract by 5.8% in 2020 and the euro area by 6.5%, followed by a gradual recovery in 2021. In Europe, the coronavirus outbreak adds to late-cycle risks for European banks. The recession in 2020 will weigh on banks' asset quality and profitability. We expect fiscal policy measures, as already announced by a variety of euro-area governments, to mitigate the economic contraction caused by the outbreak. In the current coronavirus-induced recession and its aftermath, capital levels will be a key differentiator of credit profiles among banks. Generally, banks are facing a sharp deterioration in asset quality and reductions in profitability from already low levels, while central banks are providing extraordinary levels of liquidity and governments have strong incentives to support banking systems to foster an eventual recovery. Thus, when comparing a bank to its peers, the <u>level of capital</u> with which it entered this recession and its ability to retain capital throughout the next several years take on particular importance.

The European Central Bank (ECB) announced <u>a series of measures</u> to help European Union (EU) economies weather the widening effects of the coronavirus pandemic, temporarily increasing banks' liquidity provisions, as well as lowering regulatory capital and liquidity requirements. As part of these temporary measures, the ECB increased its targeted long-term refinancing operations (TLTRO III) under more favourable terms as well as its financial asset purchase program, while refraining from lowering the ultralow interest rates further. The temporary suspension of buffer requirements for regulatory capital and the liquidity coverage ratio (LCR) gives banks greater flexibility and additional leeway to absorb the economic impacts, such as asset-quality declines. Overall, the package aims to help the banks continue to finance corporates and small and medium-sized businesses suffering from the effects of the coronavirus outbreak. We believe that the ECB's measures will provide a limited relief for banks and their borrowers, and that it will require meaningful fiscal policy measures by the European Union and its member states to avert higher default rates in banks' lending books.

Germany launched a large stimulus package and the government's support is crucial for corporate borrowers in industries immediately hurt by the coronavirus outbreak like airlines, tourism, retail and the shipping sector, as well as smaller companies experiencing weak liquidity and high leverage. The scale of the support package is unprecedented and is far larger than the support provided during the financial crisis. At the same time, the government made it easier to access its short-work scheme ("Kurzarbeit") and extended it to a broader pool of workers, which will limit the spike in unemployment and the fall in domestic consumption. The measures, which are adapted according to the evolution of the economic effects of the pandemic, add to Germany's already expansionary fiscal policy stance as well as to automatic stabilizers that support household incomes when unemployment increases.

Detailed credit considerations

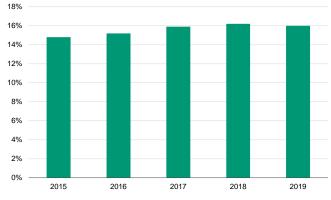
Strong capital provides ample cushion for unexpected shocks

Our assigned aa2 Capital score for S-Finanzgruppe reflects the group's solid capitalization which provides 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. At end-2018 (latest available group figure), S-Finanzgruppe's reported Tier 1 ratio was 15.9%, compared with 16.3% in 2017. The moderate reduction reflects rising risk-weighted assets, driven by loan growth, which overcompensated the increase in Tier 1 capital.

We believe that the German savings banks have ample capital to absorb considerable adverse market developments, in particular in the context of the coronavirus shock. However, we expect declining capital ratios for member banks of S-Finanzgruppe during 2020, reflecting deteriorating asset quality, which leads to rising risk-weighted assets. In addition to equity and their reported capital ratios, German savings banks have additional fully taxed reserves, which are undisclosed and exist in accordance with local accounting rules (Handelgesetzbuch, HGB).

Further, savings banks usually apply the standard approach which leads to higher risk-weighted assets (RWA) compared to the internal rating based approaches, which prevail at Landesbanks, accounting for about at 34% of their assets (2018: 33%). At the end of 2019, the savings banks' average Tier 1 ratio was 16.0% (2018: 16.2%)¹⁰, compared with Tier 1 ratios of Landesbanks, which ranged between 13.4%-16.5% for 2019 (2018: 7.7%-17.0%).

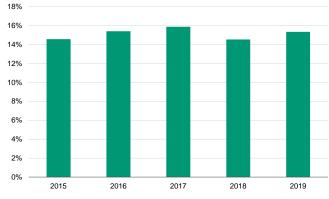
Savings banks exhibit Tier 1 ratios of around 16%* Data in %, comparing Tier 1 capital to risk-weighted assets



Note: *The chart shows the average Tier 1 ratio of savings banks. Savings banks usually apply the standard approach to calculate risk-weighted assets (RWA). *Source: DSGV*

Exhibit 4

Landesbanks' average Tier 1 ratio fluctuates around 15%* Data in %, comparing Tier 1 capital to risk-weighted assets

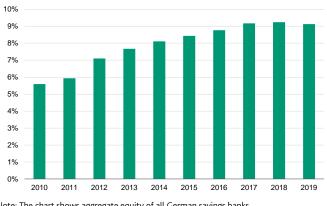


Note: *The group of banks includes BayernLB, DekaBank, Helaba, LBBW, NORD/LB, and SaarLB, similar to Deutsche Bundesbank's breakdown of "Landesbanks". *Source: Company reports*

Our favorable capital assessment for S-Finanzgruppe also takes into account the savings banks' high leverage ratio, because equity accounted for 9.1% of their assets at the end of 2019 (2018: 9.2%). This compares to 5.4% for the group of Landesbanks (2018: 5.3%), which is broadly stable at the 5% level since 2013 but meaningfully lower than for savings banks.

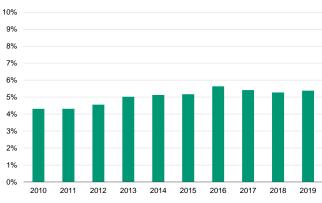


Savings banks operate with much higher equity compared ... Data in %, comparing equity to assets (leverage ratio)



Note: The chart shows aggregate equity of all German savings banks. Source: Deutsche Bundesbank

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



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

Our capital assessment for S-Finanzgruppe considers certain privileges which arise from their mutual support, codified in group's set of several institutional protection schemes (IPS).¹¹ 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 privileges, 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 materially 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 clean-up and capital strengthening measures for NORD/LB, we believe that the risk profiles for 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 coronavirus pandemic

S-Finanzgruppe's assigned b1 Profitability score is positioned in-line with its initial score and the weakest individual factor that we assing to Germany largest financial institutions group. Our assessment is based on the combined results of all member banks and reflects the expectation that savings banks and Landesbanks are increasingly challenged by the low interest rate environment, which, more recently, is compounded by the negative economic repercussion from the coronavirus pandemic.

Until last year, savings banks benefited from the benign economic conditions in Germany. Benign asset quality and ample loan growth helped to balance declining interest margins and rising operating expenses, with the latter mostly driven by nonpersonnel related costs. In 2019, for example, loans at savings banks increased by 4.6% compared with 2018, driven by higher lending to corporates and self-employed (+5.7%) and mortgages to private households (+5.9%).

For 2020 and beyond, we expect rising pressure on interest income, driven by lower loan growth and further interest margin pressure, which is partly driven by the savings banks' decision to not introduce broad-based negative interest rates to their retail clientele. We expect that the savings banks will continue to carefully manage their operating expenses. 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 work force, at around 3% in 2019, as a result of natural fluctuation, a development which is comparable to previous years. Between 2015 and 2017, the savings banks' cost-to-income ratio remained broadly stable at around 64.5% but increased to 65.5% in 2018 and 66.7% in 2019, which also reflects rising investments into digital solutions.

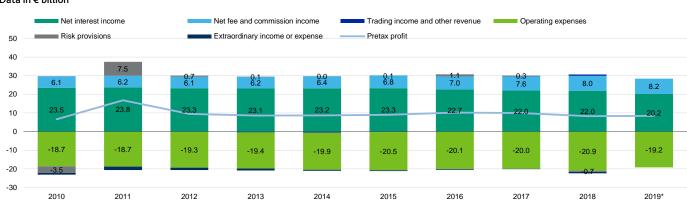


Exhibit 7 Savings banks reported stable pretax profits over the last decade and benefited from very benign asset quality Data in € billion

Note: *2019 numbers were published by DSGV on 19 March 2020. The pretax profit reflects our estimate before the addition to capital reserves. Source: Deutsche Bundesbank, DSGV, Moody's estimate

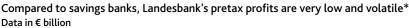
Pretax and net income figures published by Deutsche Bundesbank for savings banks somewhat differ from numbers disclosed by DSGV. This is mainly because the savings banks' association considers the addition to capital reserves (*Fonds für allgemeine Bankrisiken*) as provision expense, which reduces pretax profits. 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", i.e. after net income.

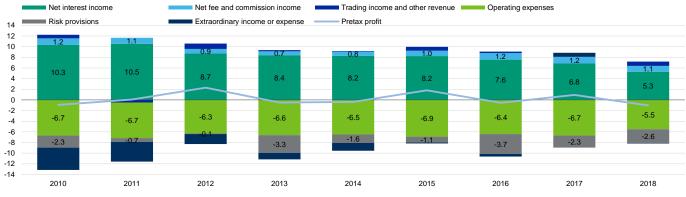
Based on DSGV numbers, German savings banks reported pre-tax profits of €4.3 billion in 2019, compared with €4.5 billion in 2018 and €5.0 billion in 2017. The lower profits were driven by moderately declining pre-provision income to €9.6 billion in 2019 (2018: €10.0 billion, 2017: €10.5 billion), reflecting lower net interest income at €20.2 billion (2018: 21.3 billion), slightly higher fee income of €8.2 billion (2018: €7.8 billion), and broadly stable operating expenses at €19.2 billion in 2019 (2018: €18.9 billion and unchanged to 2017). In 2019, savings banks' credit provisions somewhat declined to €4.1 billion, compared with €4.5 billion in 2018, and mainly reflect lower addition to capital reserves.

Since 2010, pretax profits for the group of German Landesbanks oscillated around break even, reflecting large swings in trading income and risk provisions, with the latter mostly driven by changing asset quality of ship loans. The sizeable reduction of revenues over the

last decade from around €12 billion in 2010 to around €7 billion in 2018 (latest available) reflects the reduction of assets by around 47% over the same period and a declining number of banks included in this group.¹²

Exhibit 8





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

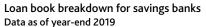
Based on aggregate data for S-Finanzgruppe, Germany's largest financial institutions group, reported pre-tax profits of €2.9 billion in 2018 (latest available), compared with €5.7 billion in 2017 (2016: €5.6 billion). The lower result reflects rising credit provisions, which went up to €4.0 billion from €2.1 billion in 2017 and mainly relate to <u>restructuring measures</u>, which NORD/LB announced in October 2018. Pre-provision income declined by around 11% to €11.0 billion, compared with €12.4 billion in 2017, driven by lower net interest income (2018: €28.9 billion; 2017: €29.8 billion), stable operating expenses (2018: €27.5 billion; €2017: €27.4 billion), and balanced by around 2% higher net fee income (2018: €8.9 billion).

At around 75%, S-Finanzgruppe's revenues are highly dependent on net interest income. During 2018, the group's aggregate net interest margin (calculated as net interest income compared with customer loans) further declined to 2.30% from 2.46% in 2017 and 2.59% in 2016. The sector's efficiency metrics compare less favorably with those of its international peers, as reflected by a cost-to-income ratio of 71.3% in 2018 and 68.7% in 2017. We consider cost containment a key challenge for the group on back of the low interest-rate environment and investments into digitalization.

Sound asset quality reflecting almost exclusive lending to the German economy

S-Finanzgruppe's Asset Risk score of a2 primarily reflects the average risk profile of German households and the corporate sector throughout the economic cycle. Risk concentrations in export-driven industries, such as the automotive and the cyclical construction sector, are a key feature of Germany's economic structure. Savings bank's manage a very diversified loan book with usually low to medium loan sizes, a credit positive. However, we expect the credit conditions for member banks of S-Finanzgruppe to weaken, reflecting economic uncertainties associated with the coronavirus outbreak.

Between 2015 and 2019, savings banks increased the exposure to corporate loans (including self-employed) from around 48% to around 52%.¹³ We believe that the sizeable loan growth to these borrowers to €444 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 37% of total loans. We believe that the banks apply conservative underwriting criteria, leading to moderate loan-to-values. 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 impose future 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.



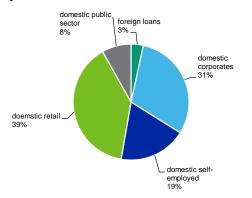
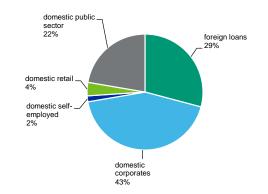


Exhibit 10

Landesbanks have sizeable foreign loans* Data as of year-end 2019



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

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

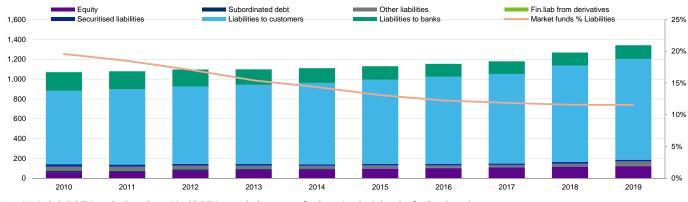
Over the last decade, S-Finanzgruppe's risk profile benefited from the reduction of Landesbanks' assets, which declined by around 47% to €807 billion at the end of 2019, compared with €1.5 trillion in 2010. ¹⁴ However, S-Finanzgruppe remains exposed to asset concentration risks, reflecting commercial real estate exposures, international lending and asset-based finance activities at Landesbanks, as well as investment portfolios, which may lead to valuation and credit losses during the global uncertainties, even if exposures have been reduced significantly in the meantime.

Strong funding which benefits from prime access to German depositors

S-Finanzgruppe's credit strength is strongly supported by sizeable and well diversified deposits. This view is reflects in our assigned a2 Funding Structure score which is three notches above the group's baa2 initial score. The positive adjustments take into account (1) S-Finanzgruppe's high deposits granularity, reflecting its market leadership across Germany; (2) the significant potential of savings banks to use their substantial mortgage books for secured funding in the capital market, if needed; and (3) the existence of sizeable covered bonds and promotional loans, provided by sovereign-related entities. We consider these 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 based on the savings banks' country-wide branch network in Germany. This allows the collection of diversified and highly granular deposits. At end-2019, the savings banks's aggregate deposits of ≤ 1.0 trillion compare with aggregate loans of ≤ 888 billion, resulting in a very favorable and gradually improving loan-to-deposit ratio of 87%, compared with 88% in 2015 and 89% in 2012.¹⁵ A large portion of the savings banks excess funding - reflecting the difference between deposits and loans - of around ≤ 128 billion at the end of 2019 (2018: ≤ 122 billion), is shared within member institutions of S-Finanzgruppe.

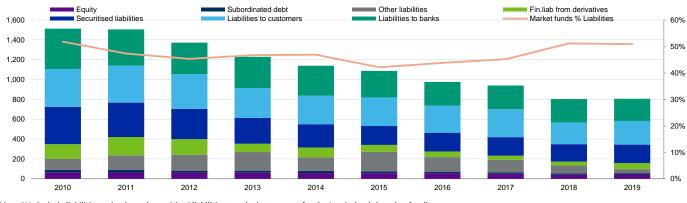
Rising deposits at savings banks helped to reduce their dependence on market funding Data in € billion



Note: 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. At the end of 2019, Landesbanks' loan-to-deposit ratio was 150%, reflecting that loans of \leq 356 billion are higher than liabilities to customers of \leq 238 billion (2018: 156%).¹⁶ Despite the Landesbanks' significant deleveraging efforts - between 2008 and 2019 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, which ranged between 135% to 156% over the period.

Exhibit 12 Landesbanks' market funding dependence remained broadly unchanged over the last decade Data in € billion



Note: 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 a3 is two notches above the group's baa2 initial score. Our assessment considers (1) the high quality of liquid assets; (2) additional, ECB eligible securities held in savings banks' held-to-maturity portfolios, and is balanced by (3) asset encumbrance, which arises from issued covered bonds, repurchase (repo) activities, and intra-group exposures.

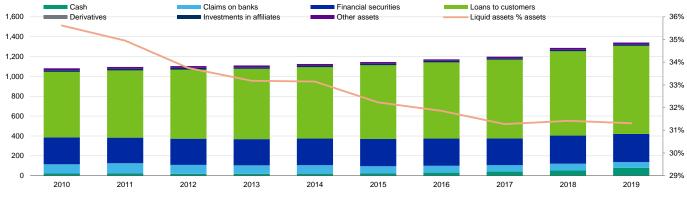
S-Finanzgruppe's liquidity strongly supports our assessment of the group's credit profile. At end-2018 (latest available), aggregate liquid assets within the group were €701 billion and included €104 billion in cash, €269 billion claims on banks and €328 billion financial securities (2017: €688 billion).¹⁷

At the end of 2019, liquid assets at savings banks accounted for 31% of their balance sheet, broadly stable since 2017, including cash (6% of assets), claims on banks (4%), as well as financial securities (21%).¹⁸ Rising loans over the last decade in combination with

declining interest rates triggered a moderate, relative reduction of savings banks' liquidity. The savings banks' Liquidity Coverage Ratio (LCR) was 187% at the end of 2019, compared with 200% in 2018.¹⁹

Exhibit 13

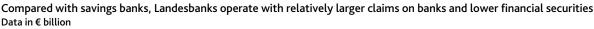
Since 2017, the savings banks' liquid assets remain broadly stable Data in € billion

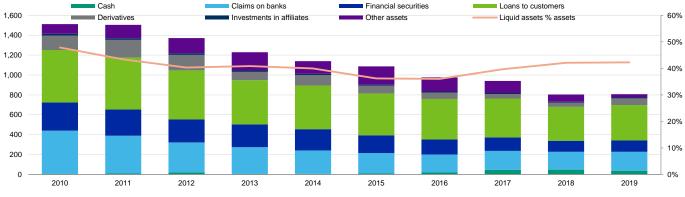


Note: We include cash, claims on banks, and financial securities for calculating the savings banks' liquid assets. Source: Deutsche Bundesbank

At the end of 2019, liquid assets at Landesbanks accounted for 42% of their balance sheet, a ratio broadly stable since 2010, and including cash (5% of assets), claims on banks (24%), as well as financial securities (14%).²⁰ Reported Liquidity Coverage Ratios (LCR) for Landesbanks ranged between 124% and 225% at the end of 2019 (2018: 115%-223%).

Exhibit 14





Note: 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 of very high quality, reflecting the large share of domestic issuers, including German public sector entities. This view is supported by the near absence of exposure to equities and somewhat balanced by the relatively high portion of investment funds, which we believe mostly relates to fixed income securities.

Around 80% of savings banks' financial securities are to domestic issuers

Data in percent, as of end-2019

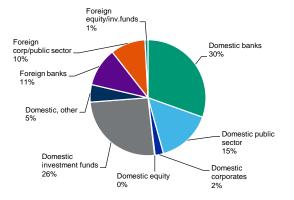
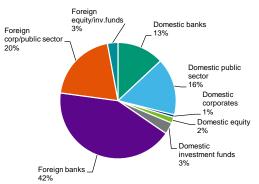


Exhibit 16

Around two thirds of Landesbanks' financial securities are exposed to foreign issuers $\ensuremath{^*}$

Data in percent, as of end-2019



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

Macro Profile of "Strong+"

Source: Deutsche Bundesbank

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

However, increasing profitability pressure amid a prolonged, highly adverse interest rate environment combined with poor efficiency have triggered a <u>change in the macro profile of Germany</u> to Strong+ from Very Strong- previously. Further, operating conditions for the German banking system are constrained by high fragmentation in an oversaturated market, low fee income generation and intensifying competition for domestic business.

Environmental, social and governance (ESG) considerations

In line with our general view on the banking sector, S-Finanzgruppe and its member banks have an overall low exposure to Environmental risks (see our <u>environmental risk heat map²¹</u> for further information).

For social risks, we also place S-Finanzgruppe and its member banks in line with our general view on the banking sector, which indicates a moderate exposure (see our <u>social risk heat map²²</u> for further information). This includes considerations in relation to the rapid and widening spread of the coronavirus outbreak, given the substantial implications for public health and safety and deteriorating global economic outlook, creating a severe and extensive credit shock across many sectors, regions and markets.

Some savings banks in Germany have started to cancel certain types of deposit contracts (Prämiensparverträge) which offered relatively high interest rates to depositors. We believe that the cancelation may have negative repercussions on certain clients relationships but consider the overall impact on the savings banks' brand name and banking franchises to be very limited. In May 2018, Germany's Federal Court of Justice had approved the cancelation of these contracts under certain conditions.

Governance²³ is highly relevant for S-Finanzgruppe and its member banks, as it is to all banks. While we do not see meaningful governance risks and do not apply any corporate behavior adjustments to Germany's largest banking sector or its member institutions, we consider the group's overall setup complex and diverse. This view reflects different ownership structures, including municipalities and federal states, and individual risk management frameworks as well as corporate governance set-ups. The unusual diverse group of stakeholders slows down the decision-making process within S-Finanzgruppe. However, we acknowledge the centralized risk management oversight, housed under the Berlin-based Deutscher Sparkassen- und Giroverband e.V., which is partly a requirement under S-Finanzgruppe's Institutional Protections Schemes.

Other developments

On 9 January 2020, we upgraded NORD/LB's senior unsecured debt and deposit ratings to A3 from Baa2 and changed the outlook to stable. The upgrade reflects NORD/LB's capital strengthening of combined \in 3.6 billion from its public sector owners. The support package included fresh capital of \notin 2.835 billion, of which \notin 1.7 billion was injected by Lower Saxony and Saxony-Anhalt. The rest was provided by the German Savings Banks Association, which injected a combined \notin 1.1 billion. S-Finanzgruppe's support of NORD/LB underpins the reliability of its IPS and also our current assumptions of a very high probability of affiliate support for savings banks, as well as a high probability of affiliate support for Landesbanks that are not fully owned by S-Finanzgruppe, such as NORD/LB. For further details, please refer NORD/LB's credit opinion.

HCOB is the first former Landesbank, which has been privatized. Since 28 November 2018, the bank is owned by a consortium of private equity funds led by Cerberus Capital Management L.P. and J.C. Flowers & Co. HCOB will remain a member of S-Finanzgruppe's institutional protection scheme (IPS) during the three-year transition period until HCOB will become a full member of the voluntary deposit guarantee fund for Germany's private banks, subject to a positive assessment of its financial strength at that point by the Bundesverband deutscher Banken (BdB).

Support and structural considerations

Notching for Corporate Family Rating (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, but all of its affiliated institutions are subject to 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 on S-Finanzgruppe represents the risk characteristics of a notional single class of debt assumed to fund its aggregate balance sheet.

Our Advanced Loss Given Failure 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 the size and high systemic relevance of S-Finanzgruppe to Germany's financial stability.

Methodology and Scorecard

Methodology

The principal methodology we use in rating S-Finanzgruppe is the <u>Banks Methodology</u>, published in November 2019.

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 17

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	-	-	-	a2	Quality of assets	Sector concentration
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	-	-	-	aa2	Risk-weighted capitalisation	Expected trend
Profitability						
Net Income / Tangible Assets	0.2%	b1	$\leftrightarrow \rightarrow$	b1	Return on assets	Expected trend
Combined Solvency Score		a3		a3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	26.6%	baa2	$\leftarrow \rightarrow$	a2	Market funding quality	Deposit quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	17.1%	baa2	$\leftarrow \rightarrow$	a3	Quality of liquid assets	Additional liquidity resources
Combined Liquidity Score		baa2		a2		
Financial Profile				a3		
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				a2 - baa1		
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 18

Category	Moody's Rating	
SPARKASSEN-FINANZGRUPPE		
Outlook	Negative	
Baseline Credit Assessment	a2	
Adjusted Baseline Credit Assessment	a2	
Corporate Family Rating -Dom Curr	Aa2	
Source: Moody's Investors Service		

Source: Moody's Investors Service

Endnotes

1 As of end-2019.

- 2 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 3 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 4 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 5 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 6 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 7 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 8 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 9 The ratings shown are the bank's deposit rating and outlook/senior unsecured rating and outlook, and its Baseline Credit Assessment.
- 10 Source: DSGV.
- 11 This scheme includes rules for mutual support within groups of banks in order to ensure the liquidity and solvency of their member institutions.
- 12 In 2010, Deutsche Bundesbank's group of Landesbanks included 10 banks and 6 banks in 2018.
- 13 Source: Deutsche Bundesbank.
- 14 Source: Deutsche Bundesbank.
- 15 Source: Deutsche Bundesbank.
- 16 Source: Deutsche Bundesbank.

17 Source: DSGV.

- 18 Source: Deutsche Bundesbank.
- 19 Source: DSGV.
- 20 Source: Deutsche Bundesbank.
- 21 Environmental risks can be defined as environmental hazards encompassing the impacts of air pollution, soil/water pollution, water shortages and natural and man-made hazards (physical risks). Additionally, regulatory or policy risks, such as the impact of carbon regulation or other regulatory restrictions, including the related transition risks such as policy, legal, technology and market shifts, that could impair the evaluation of assets are an important factor. Certain banks could face a higher risk from concentrated lending to individual sectors or operations exposed to the aforementioned risks.
- 22 Social risk considerations represent a broad spectrum, including customer relations, human capital, demographic and social trends, health and safety, and responsible production. The most relevant social risks for banks arise from the way they interact with their customers. Social risks are articularly high in the area of data security and customer privacy, which are partly mitigated by sizeable technology investments and banks' long track record of handling sensitive client data. Fines and reputational damage because of product mis-selling or other types of misconduct are further social risks. Social trends are also relevant in a number of areas, such as shifting customer preferences towards digital banking services increasing information technology costs, ageing population concerns in several countries affecting demand for financial services or socially driven policy agendas translating into regulations that affect banks' revenue bases.
- 23 Corporate governance is a well-established key driver for banks and related risks are typically included in our evaluation of the banks' financial profile. Further factors such as specific corporate behaviour, key-person risk, insider and related-party risk, strategy and management risk factors, and dividend policy may be captured in individual adjustments to the BCA, if deemed applicable. Corporate governance weaknesses can lead to a deterioration in a company's credit quality, while governance strengths can benefit its credit profile. When credit quality deteriorates because of poor governance, such as a breakdown in controls resulting in financial misconduct, it can take a long time to recover. Governance risks are also largely internal rather than externally driven.

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REPORT NUMBER 1229770

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