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CREDIT OPINION
31 October 2022

Update

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RATINGS

Bausparkasse Schwaebisch Hall AG

Domicile	Germany
Long Term CRR	Aa2
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	Aa2
Type	LT Bank Deposits - Fgn Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Bausparkasse Schwaebisch Hall AG

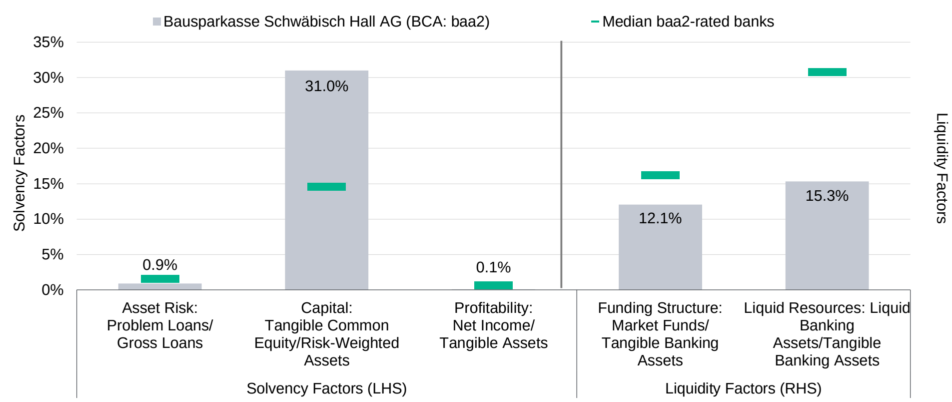
Update to credit analysis

Summary

Bausparkasse Schwaebisch Hall AG's (BSH) Aa2 deposit and issuer ratings reflect the bank's baa2 BCA, two notches of rating uplift from its membership in the institutional protection scheme of the German cooperative banking association (Genossenschaftliche FinanzGruppe, G-Finanzgruppe), the application of our Advanced Loss Given Failure (LGF) analysis to its liabilities that indicates an extremely low loss given failure and results in three notches of rating uplift, and a one-notch rating uplift resulting from government support because of its membership in the systemically relevant G-Finanzgruppe.

BSH's baa2 BCA reflects the bank's strong ties with its parent, DZ BANK AG (DZ BANK, Aa2/Aa2 stable, baa2)[1], including a profit-and-loss transfer agreement and sizeable investments in DZ BANK's liabilities. The BCA takes into account BSH's solid asset quality and sound funding profile which is predominantly based on granular deposits. Our assessment also considers BSH's low profitability and increasing industrywide capital requirements, which soften its relative capital strength. Our view of BSH's solid financial profile is balanced by the very narrowly focused business model as a building society (Bausparkasse), which requires it to focus exclusively on residential mortgage lending products.

Exhibit 1
Rating Scorecard - Key financial ratios



Source: Moody's Investors Service

Credit strengths

- » Exceptionally strong and high-quality risk-weighted capitalisation, somewhat balanced by rising industrywide capital requirements
- » Sound asset quality, which benefits from granular and low-risk residential mortgage loans, with a clear focus on Germany (Aaa stable)
- » Limited dependence on market funding, reflecting high-quality, long-term retail deposits

Credit challenges

- » Low profitability and limited earnings diversification, balanced by slowly abating pressure on net interest margins as a result of the persistent low rate environment
- » Moderately declining liquid resources reflecting rising mortgages as percent of total assets
- » BSH's highly focused and narrow business model within the specific building and loan association legal framework

Outlook

The stable outlook reflects our expectation that BSH's financial profile remains resilient despite intensifying economic challenges in Germany and that the bank can weather the pressures from the low - albeit rising - interest rates. Further, we expect the intrinsic strength of DZ BANK, which caps BSH's BCA at baa2, to remain broadly unchanged over the 12 to 18 months outlook horizon. Similarly, we do not anticipate a change in its affiliate support or in the liability structure of DZ BANK uplift during this time frame.

Factors that could lead to an upgrade

- » An upgrade of BSH's ratings could be triggered by an upgrade of the bank's BCA, or by an improvement in the cooperative sector's financial strength. Please refer to the latest Credit Opinion of DZ BANK for detailed factors that could lead to an upgrade or downgrade of the parent's BCA. BSH's ratings already benefit from the highest possible uplift under our Advanced LGF analysis.
- » An upgrade of BSH's BCA could be prompted by an upgrade of DZ BANK's BCA which caps BSH's BCA at baa2 and, at the same time, BSH at least maintaining its own financial profile. An upgrade of BSH's unconstrained BCA could be prompted by a sustained improvement in the bank's profitability, in particularly from a material reduction in the risk stemming from low interest rates on its core business.

Factors that could lead to a downgrade

- » A downgrade of BSH's ratings could result from a joint weakening of the financial strength of G-Finanzgruppe and DZ BANK, or if DZ BANK significantly reduces its liabilities designed to absorb losses in bail-in relative to its tangible banking assets.
- » BSH's BCA could be downgraded in the case of a downgrade of DZ BANK's BCA, because it caps BSH's BCA. BSH's unconstrained BCA could be downgraded as a result of lower capitalisation; pressure on profitability; more aggressive risk-taking which could hurt the bank's asset quality; or a significantly higher dependence on market funding.

Key indicators

Exhibit 2

Bausparkasse Schwaebisch Hall AG (Consolidated Financials) [1]

	12-21[2]	12-20[2]	12-19[2]	12-18[2]	12-17[2]	CAGR/Avg.[3]
Total Assets (EUR Billion)	85.4	81.7	77.5	71.7	68.3	5.7[4]
Total Assets (USD Billion)	96.7	99.9	87.0	81.9	82.1	4.2[4]
Tangible Common Equity (EUR Billion)	5.1	5.0	5.0	4.7	4.5	3.2[4]
Tangible Common Equity (USD Billion)	5.8	6.1	5.6	5.3	5.4	1.7[4]
Problem Loans / Gross Loans (%)	0.8	0.9	1.0	1.1	1.2	1.0[5]
Tangible Common Equity / Risk Weighted Assets (%)	31.0	31.9	34.4	32.5	33.3	32.6[6]
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	9.7	10.4	10.4	10.9	11.2	10.5[5]
Net Interest Margin (%)	0.7	0.7	0.7	1.1	1.2	0.9[5]
PPI / Average RWA (%)	0.7	0.7	0.6	2.2	2.4	1.3[6]
Net Income / Tangible Assets (%)	0.1	0.1	0.1	0.3	0.4	0.2[5]
Cost / Income Ratio (%)	81.8	82.5	85.3	61.5	59.0	74.0[5]
Market Funds / Tangible Banking Assets (%)	12.0	9.9	8.0	6.3	6.6	8.6[5]
Liquid Banking Assets / Tangible Banking Assets (%)	15.3	15.8	16.5	16.1	21.9	17.1[5]
Gross Loans / Due to Customers (%)	94.8	90.8	85.0	79.6	76.9	85.4[5]

[-] Further to the publication of our revised methodology in July 2021, only ratios from annual 2020 onwards included in this report reflect the change in analytical treatment of the "high-trigger" Additional Tier 1 instruments. [1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; IFRS. [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. [5] Simple average of periods for the latest accounting regime. [6] Simple average of Basel III periods.
Sources: Moody's Investors Service and company filings

Profile

Bausparkasse Schwaebisch Hall AG (BSH) is Germany's largest building and loan association, with a market share of around 30% and additional Bauspar activities in Hungary (Baa2 stable), Slovakia (A2 negative) and China (A1 stable) through joint ventures (JVs). DZ BANK owns 97.1% of BSH. The remaining shares are mostly held by primary banks in the German cooperative sector. BSH is a member of the German cooperative sector's institutional protection scheme.

As of year-end 2021, BSH had more than eight million clients, and it managed around eight million Bauspar contracts worth €312 billion in Germany and two million contracts worth €42.1 billion outside Germany. As of year-end 2021, BSH's mortgage finance lending amounted to €58.4 billion (December 2020: €53.8 billion) in Germany and €5.7 billion (December 2020: €4.9 billion) outside Germany. BSH had around 6,700 employees as of year-end 2021, of which about half constituted its direct sales force.

Since its foundation in 1931, BSH's growth has focused on organic expansion, supported by successful cross-selling to the cooperative banks' client base based on an integrated sales approach in collaboration with the primary banks of the sector.

Weighted Macro Profile of Strong +

BSH is focused on the German market, but also engages in its core business in Hungary, Slovakia and China through JVs. The bank's assigned Strong + Weighted Macro Profile is derived from Germany's Strong + Macro Profile, which accounts for 91% of BSH's total exposures as of year-end 2021.

Detailed credit considerations

Close integration with DZ BANK limits BSH's standalone BCA

We cap BSH's standalone BCA at baa2, at the level of its parent DZ BANK's BCA. BSH is one of the specialised financial institutions that belong to DZ BANK, the central institution of G-Finanzgruppe. BSH's customer base has a significant overlap with that of G-Finanzgruppe's primary institutions, and the building and loan association has a product offering that complements the range offered by G-Finanzgruppe's member banks. A mutual interest in cross-selling fee-generating products and the membership in a well-established and effective institutional protection scheme ensure a solid alignment of economic interests within G-Finanzgruppe.

In addition to the profit-and-loss transfer agreement, BSH maintains strong financial ties with DZ BANK through investments of excess deposits in securities issued by group members. Additional nonfinancial ties exist because of the integration of BSH's bank management within the group framework, for example, in the area of risk policy and as DZ BANK's centre of excellence for retail property finance.

The building and loan association benefits from strong capital

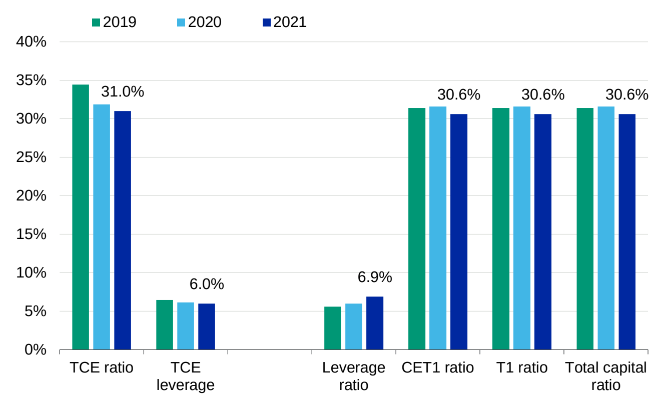
We assign a Capital score of aa2 to BSH, one notch below the aa1 initial score. The assigned score reflects the bank's very strong coverage of risk-weighted assets by its regulatory Common Equity Tier 1 (CET1) capital and tangible common equity (TCE), our central metrics for assessing capital strength. The adjustment also reflects BSH's limited ability to retain earnings in the still low - albeit improving - interest rate environment and under its earnings transfer agreement with DZ BANK, which we expect to result in a decrease of risk-weighted capital ratios over time.

BSH's very strong TCE ratio of 31.0% as of December 2021, down from 31.9% as of December 2020, benefits from the low risk weights assigned to its conservatively underwritten German residential mortgage portfolio under the internal ratings-based approach that it employs. We expect risk-weighted assets to grow, including the effects from the output floor phase-in for internal models, as suggested by the finalisation of the Basel III rules during 2025-30, also sometimes referred to as Basel IV.

In absolute terms, BSH's leverage ratio, measured as TCE/tangible banking assets, was 6.0% as of year-end 2021, slightly down from 6.1% a year earlier. We expect the bank's regulatory Tier 1 leverage ratio will continue to exceed the TCE leverage ratio, mainly as a result of the future regulatory exclusion of BSH's intra-sector exposures from the denominator.

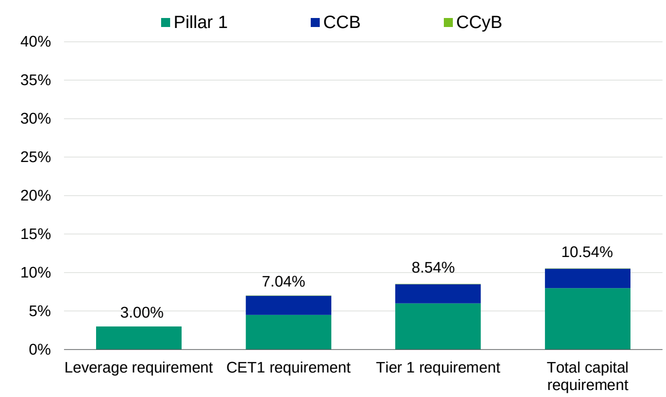
In early 2022, German banking supervisory authority BaFin announced its intention to implement a countercyclical capital buffer (CCyB) requirement of 0.75% of domestic risk-weighted assets (RWAs) and a 2.0% systemic risk buffer for risk-weighted exposures collateralised by residential real estate, which banks will have to fulfil by 1 February 2023. With BSH's loans mostly derived from Germany and solely representing residential real estate exposures, the bank will face a substantial increase in its capital requirements, at least temporarily. However, we believe that these new requirements will not weaken BSH's ability to provide new lending because of its very large buffers above minimum capital requirements (Exhibit 3 and 4).

Exhibit 3
BSH exhibits very high capital ratios ...



TCE = Tangible common equity (Moody's-calculated); CET1 = Common Equity Tier 1.
Sources: Company and Moody's Investors Service

Exhibit 4
... which exceed minimum capital requirements by large margins.



CCB = Capital conservation buffer; CCyB = Countercyclical capital buffer.
Source: Company and Moody's Investors Service

Low-risk residential mortgage lending limits asset risks

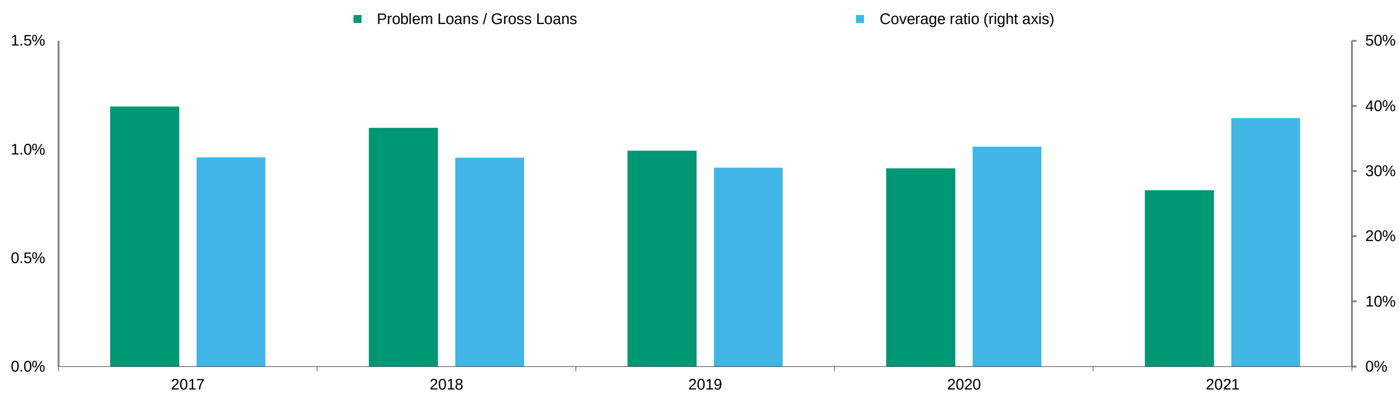
We assign an a2 Asset Risk score to BSH, three notches below the aa2 initial score. The assigned score reflects very low problem loans and very high recoveries that BSH has historically obtained. At the same time, the score incorporates a negative adjustment driven by BSH's sensitivity to the interest rate environment, reflecting our view that the bank's solvency is sensitive to a sudden increase in interest rates.

The credit risk of BSH's €79.4 billion loan book is relatively low, as reflected by its focus on residential mortgage lending (accounting for 70% of total) and the inherent high portfolio granularity. Financial sector loans accounted for 17% and public sector loans for 12% of total loans as of year-end 2021.

BSH's problem loans amounted to €513 million as of year-end 2021, slightly down from €539 million in 2020. We consider BSH's higher year-end 2021 coverage of nonperforming loans by loan loss reserves of 38.1% (2020: 33.8%) adequate in light of the tight loan-to-value (LTV) limits set by the German special law for building and loan associations. For loans subject to the Bausparkassengesetz, the maximum loan-to-value (LTV) ratio has been capped at 100% for owner-occupied property since 2015, and it remains capped at 80% for all other residential mortgage loans.

We do not expect the recent increase in inflation and interest rates to lead to a significant weakening of the strong credit performance of BSH's mortgage loan book this year. As of year-end 2021, loans subject to specific loan loss reserves accounted for only 0.8% of gross loans. However, we expect 2023 to be a more difficult year for many borrowers, in case high energy prices not only hit household finances but also weaken economic growth and employment in Germany.

Exhibit 5
BSH's asset-quality metrics have remained broadly stable at very benign levels since 2017
Data in %



The problem loan ratio is in accordance with our definition; since 2018, according to IFRS 9 reporting standards.
Sources: Company and Moody's Investors Service

Although BSH's exposure to interest rate risk in its banking book is low and it does not run a trading book, its business model's key sensitivity is to future interest rate levels and client behaviour. To date, the extended period of negative interest rates incentivized Bauspar clients to extend the savings periods for their fixed-rate deposits and increase deposit balances further, while BSH and its peers have been challenged to reinvest such additional funds at a profit. Conversely, unexpectedly rapid and pronounced rate increases would expose the sector to deposit outflow and to rising demand for loans at previously agreed fixed interest rates under the Bauspar product.

Low profitability reflecting fierce competition for mortgage loans and inflexible costs

We assign a b2 Profitability score to BSH, one notch above the b3 initial score. The assigned score balances our expectation of continued strong competition for mortgage loans, which creates margin pressure, and the potential of higher net interest income from new loan underwriting as well as rising lending rates over the next few years. Our score also reflects BSH's ability to maintain a moderate level of profitability during a difficult environment for the building and loan associations sector due to persistent low interest rates.

The rising environment of mortgage rates since the beginning of the year could benefit BSH's profitability over the coming years. Bauspar saving contracts have become more attractive to finance or modernize property because it provides loans at still-low fixed interest rates. Further, the attractiveness of savings contracts as a product for pure return-driven deposit placements is slowly fading. For BSH, this could create additional scope for generating higher net interest income, which, at around 90%, is the bank's most important source of revenue.

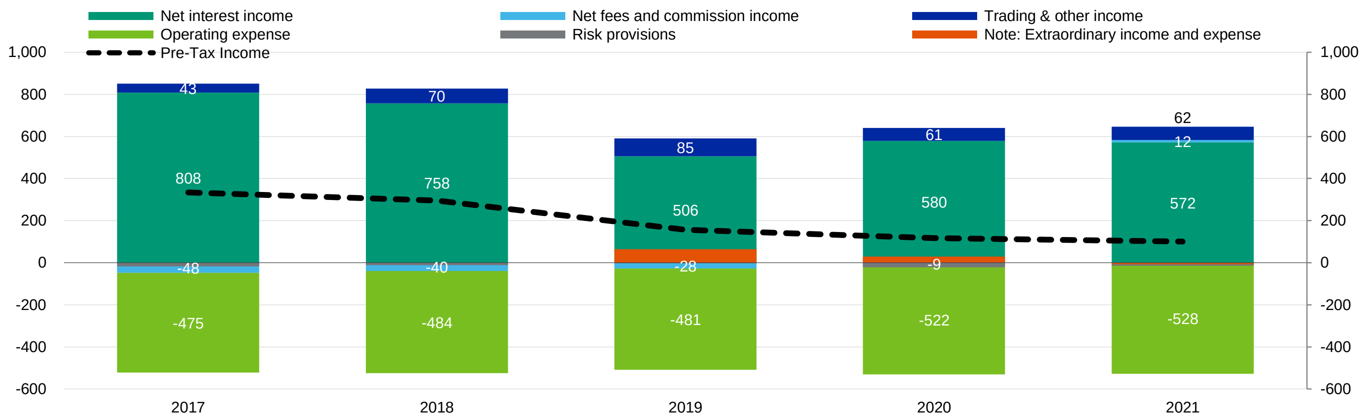
The decline in BSH's net interest margin has strained its profitability. For the year's 2019-21, the bank's net income compared to assets fell to around 10 basis points, compared with around 35 basis points in 2017 and 2018. Recent vintage fixed-rate mortgage loans have been originated at significantly lower rates than maturing loans. However, loan pricing still remains more attractive than BSH's financial securities, which rolled over at much lower coupon rates. Although BSH's overhang of high-coupon legacy Bauspar deposits is manageable overall, the fixed-rate promise and loyalty bonuses associated with most Bauspar deposit contracts result in an unfavourably priced liability structure. Low conversion rates of costly deposits into Bauspar loans limit BSH's ability to stabilise its net interest margin, which fell to 0.7% in 2021 from 1.6% in 2014.

For 2021, BSH reported net income of €90 million, compared with €59 million in 2020. The main drivers for the bank's improved results were higher net fee income, which improved to €12 million from an expense of €9 million[2] the year before, as well as lower credit provisions, which decreased to €14 million from €29 million over the same period (2019: €4 million). During 2021, BSH's net interest income increased to €581 million (2020: €531 million), mainly reflecting the reversal of interest bonus reserves of €204 million, compared with extraordinary additions of €115 million in 2020. Operating expenses, including depreciation and amortization, moderately declined to €515 million from €526 million the year before, which included provisions of €29 million, associated with BSH's multi-year efficiency program. Additionally, BSH realised a €27 million net gain from the sale of investment securities in 2021, compared with €56 million in 2020.

Exhibit 6

BSH's operating income highly depends on the net interest income

Data in € million



Sources: Company and Moody's Investors Service

We believe BSH's cost-to-income ratio will only improve slowly. Initial investments in cost initiatives and IT implementation will gradually be recovered through a declining operating costs. We expect declining pressure from interest bonus provisioning together with positive mix effects through a replacement of maturing securities with new residential mortgage loans to increasingly outweigh the drag on net interest income from the maturity of higher-yielding fixed rate mortgages underwritten in the past decade.

For the first half of 2022, DZ BANK reported pretax profit of €168 million (H1 2021: €54 million) for its BSH segment. The strong improvement mainly reflects the reversal of provisions for interest rate bonuses ("bauspartechnische Rueckstellungen"). New mortgage lending, which BSH partly underwrites on behalf of G-Finanzgruppe's primary banks, was at €10.3 billion in the first six months of 2022, broadly unchanged compared with the same period in 2021. In addition, BSH signed new Bauspar contracts with a volume of €16.1 billion in H1 2022, up from €14.7 billion in H1 2021. However, BSH saw a moderate decline in its domestic Bauspar business market share to 28.6% from 30.5% over the same period, reflecting an overall strong market growth.

Very strong funding profile reflecting sizeable and granular retail deposit

We assign an aa3 Funding Structure score to BSH, two notches above the initial score. The high score reflects BSH's clear focus on deposit funding and the fact that most of its liabilities to banks relates to members of the cooperative sector. The adjustment to the initial score also reflects our expectation that the bank's use of market funding will rise moderately because BSH plans to expand its mortgage covered bond issuance programme (Aaa stable), which will somewhat diversify its funding profile away from Bauspar deposits.

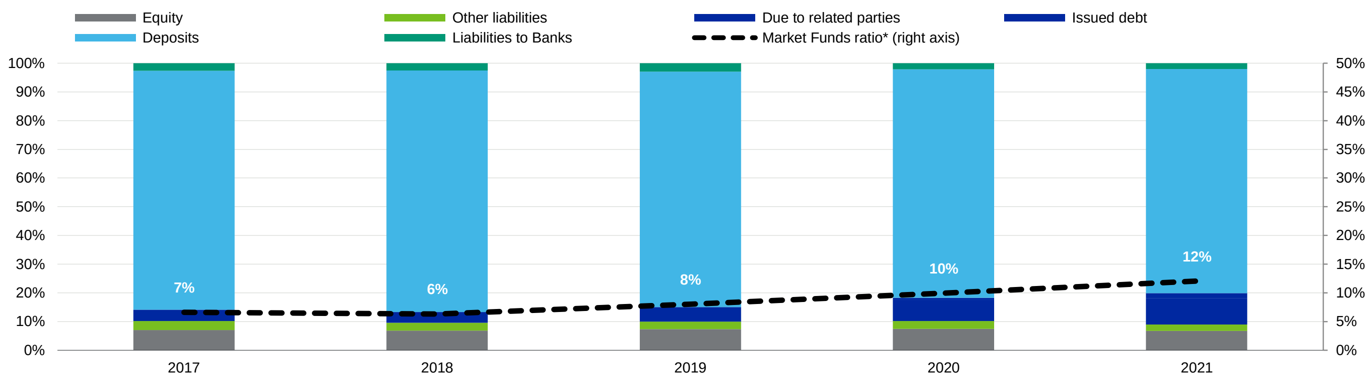
In October 2020, BSH issued its first benchmark-size mortgage covered bond with a 10-year tenor at a negative yield, followed by four further bonds at a volume of €500 million each and maturities between seven and 12 years. With a gross loan-to-deposit ratio of 95%

as of year-end 2021 (2020: 91%), BSH's residential mortgage lending activities are comfortably funded with Bauspar deposits sourced from retail clients. Accordingly, interbank funding is only sourced on a very selective basis, including funds received from sector banks during the course of normal business interaction and a very limited amount of promotional funding passed through to clients as part of residential mortgage financing solutions.

BSH's funding access is supported by its strong penetration of the cooperative sector's client base and its entrenched role as a mortgage specialist within the sector. BSH aims to diversify its funding sources through additional mortgage covered bond issuances, which we partly (50%) include in our market funding analysis.

Exhibit 7

The moderate increase in BSH's market funds reflects the issuance of covered bonds



*Market funding ratio = Market funds/tangible banking assets.
Sources: Company and Moody's Investors Service

Strong liquidity buffer provides room for business growth

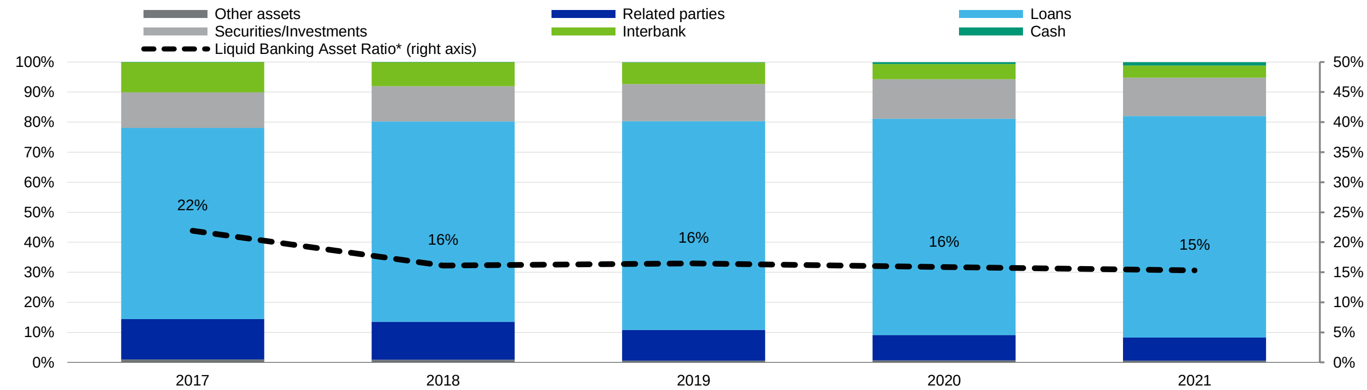
We assign a baa2 Liquidity score to BSH, in line with the initial score. Our assessment reflects the bank's sound liquidity buffer, relative to its long-duration assets, including interbank loans and securities from the cooperative banking sector.

As part of its liquidity management, BSH holds a sizeable financial securities portfolio, excluding issuers of the cooperative sector, of around €10.9 billion at the end of 2021 (2020: €10.7 billion). The portfolio is designed to absorb any potential liquidity stress that could arise under adverse conditions and will likely shrink somewhat as BSH provides additional loans. Given its strong interconnectedness with the cooperative sector, BSH also holds intragroup claims and bonds, at around €6.6 billion at the end of 2021 (2020: €6.9 billion) that could be used, at least partly, to cover any liquidity shortfalls, if needed.

To support business growth, BSH has gradually reduced these intragroup loans while maintaining the share of its securities portfolio constant, at around 12-13% of assets since 2016. As the bank continues to grow its loan book, at 74% of assets at the end of 2021 compared with 72% in 2020 and 67% in 2018, we believe that BSH's liquidity will moderately decline. However, this trend is balanced by BSH's ability to source additional liquidity, if needed, through issued covered bonds because pledged loans from the cover pool can also be used to generate central bank liquidity. BSH's very conservative liquidity management is also expressed by a very favorable regulatory liquidity coverage ratio, which was 1,781% at the end of 2021 (2020: around 442%), and thus strongly above the minimum requirement of 100%.

Exhibit 8

BSH's balance-sheet liquidity is moderately declining as the share of customer loans is increasing



*Liquid banking assets ratio = Liquid assets/tangible banking assets.
Sources: Company and Moody's Investors Service

Narrow business model of mortgage lending constrains the BCA

Business diversification is an important gauge of a bank's sensitivity to stress in a single business line. It is related to earnings stability in the sense that earnings diversification across distinct and relatively uncorrelated lines of business increases the reliability of a bank's earnings streams and its potential to absorb shocks affecting a business line.

BSH's high concentration in mortgage lending and the Bauspar product in particular leads us to deduct a full notch from its a3 Financial Profile score. BSH depends almost exclusively on one business line, mortgage savings and loan contracts. Therefore, we classify it as a monoline bank. In terms of assets, BSH, like its building and loan association peers, has put strong emphasis on residential mortgage loan products marketed either along with Bauspar contracts or on a standalone basis. The scope of these activities is narrowly limited by the special law applicable for German Bausparkassen under which BSH operates.

Most of BSH's funding structure rests on retail deposits sourced under Bauspar contracts. Although BSH plans to partly diversify its funding structure by issuing covered bonds, we expect Bauspar deposits to continue to dominate its liability side.

ESG considerations

In line with our general view of the banking sector, BSH has low exposure to environmental risks[3] (for further information, see our environmental risk heat map), despite its large exposure to residential real estate, which represents a major source of carbon dioxide emissions. At the same time, ecological modernisation represents a significant part of BSH's new lending business.

BSH's social risks are in line with our general view of the banking sector, which indicates moderate exposure. This includes considerations in relation to the pandemic because of the substantial implications for public health and safety, and the severe and extensive economic shock the pandemic has caused across many sectors, regions and markets. For further information, see our social risk heat map[4]. Bank-specific social risks for BSH could also be highlighted by consumer protection associations that target specialised residential mortgage lenders as they try to terminate costly legacy client relationships. BSH has taken a less aggressive approach to contract terminations and, therefore, we deem the bank less exposed to potential challenges in court than the vast majority of its peers.

Governance[5] is highly relevant for BSH, as it is to all banks. BSH is integrated into DZ BANK's appropriate risk management framework related to its risk appetite, and we do not have any particular governance concern for the bank or apply any corporate behaviour adjustment for BSH. Nonetheless, corporate governance remains a key credit consideration because of new emerging risks and continues to be a subject of our ongoing monitoring.

Support and structural considerations

Affiliate support

BSH's a3 Adjusted BCA benefits from the strong fundamentals of and our assessment of a very high probability of support from the German cooperative banking association, G-Finanzgruppe, which provides support to all members through its institutional protection scheme.

As a member of the cooperative group of banks, BSH is highly likely to receive affiliate support in case of need. This support significantly reduces the probability of default because the cooperative group's cross-sector support mechanism aims to stabilise its members by avoiding any form of loss participation by creditors or bail-ins. Our affiliate support assumptions result in two notches of rating uplift from the baa2 BCA, benefiting the bank's issuer and deposit ratings, and CRRs.

Loss Given Failure (LGF) analysis

BSH is subject to the Bank Recovery and Resolution Directive, which we consider an operational resolution regime. Therefore, we apply our Advanced LGF analysis, under which we consider the risks faced by the different debt and deposit classes across the liability structure should the bank enter resolution. BSH is a domestic subsidiary of DZ BANK and we include it in the resolution perimeter of the parent for the purpose of our Advanced LGF analysis, which is based on the liability structure at the DZ BANK level.

In line with our standard assumptions, we further assume a residual TCE of 3%, post-failure losses of 8% of tangible banking assets, a 25% runoff in junior wholesale deposits and a 5% runoff in preferred deposits. Because we use private data provided by DZ BANK to determine current amounts of senior unsecured and junior senior debt, as well as our future new issuance expectations, we do not disclose the underlying volumes of the liability tranches included in our Advanced LGF analysis for the group.

For BSH's deposit and issuer ratings, our LGF analysis indicates an extremely low loss given failure, leading to a three-notch uplift from its a3 Adjusted BCA.

Government support considerations

We incorporate one notch of uplift into our senior unsecured debt and deposit ratings for members of G-Finanzgruppe, reflecting our assumption of a moderate probability of support.

Our government support assumptions, which are included in BSH's ratings, reflect the size and high systemic relevance at the domestic level of the group of cooperative banks. Such support would probably not be provided to the bank directly but rather to G-Finanzgruppe, in the unlikely event that the group either cannot provide the required support or cannot provide it quickly enough, based on the sector's combined financial strength.

Counterparty Risk Ratings (CRRs)

BSH's CRRs are Aa2/P-1

The CRRs are four notches above BSH's a3 Adjusted BCA, based on the extremely low loss given failure from the high volume of instruments at the DZ BANK level that are subordinated to CRR liabilities, reflected in three notches of uplift; and one notch of rating uplift based on government support, in line with our support assumptions on deposits and senior unsecured debt.

Counterparty Risk (CR) Assessment

BSH's CR Assessment is Aa2(cr)/P-1(cr)

BSH's Aa2(cr) CR Assessment is four notches above the a3 Adjusted BCA, three notches of which are based on the buffer against default provided to the senior obligations represented by the CR Assessment by more subordinated instruments, primarily senior unsecured debt. Because the CR Assessment captures the probability of default on certain senior operational obligations, rather than expected loss, we focus purely on subordination and take no account of the volume of the instrument class.

Methodology and scorecard

Methodology

The principal methodology used in rating BSH was the Banks 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 9

Bausparkasse Schwaebisch Hall AG

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		0.9%	aa2	↔	a2	Sector concentration	Collateral and provisioning coverage
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)		31.0%	aa1	↔	aa2	Risk-weighted capitalisation	Capital retention
Profitability							
Net Income / Tangible Assets		0.1%	b3	↔	b2	Return on assets	Expected trend
Combined Solvency Score			a2		a3		
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets		12.0%	a2	↔	aa3	Extent of market funding reliance	Expected trend
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets		15.3%	baa2	↔	baa2	Stock of liquid assets	Additional liquidity resources
Combined Liquidity Score			a3		a2		
Financial Profile					a3		
Qualitative Adjustments					Adjustment		
Business Diversification					-1		
Opacity and Complexity					0		
Corporate Behavior					0		
Total Qualitative Adjustments					-1		
Sovereign or Affiliate constraint					Baa2		
BCA Scorecard-indicated Outcome - Range					baa1 - baa3		
Assigned BCA					baa2		
Affiliate Support notching					-		
Adjusted BCA					a3		

Balance Sheet is not applicable.

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF Notching Guidance vs. Adjusted BCA	Assigned LGF notching	Additional Notching	Preliminary Rating Assessment
	Instrument volume + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto				
Counterparty Risk Rating	-	-	-	-	-	-	-	3	0	aa3
Counterparty Risk Assessment	-	-	-	-	-	-	-	3	0	aa3 (cr)
Deposits	-	-	-	-	-	-	-	3	0	aa3
Senior unsecured bank debt	-	-	-	-	-	-	-	3	0	aa3

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Rating	3	0	aa3	1	Aa2	Aa2
Counterparty Risk Assessment	3	0	aa3 (cr)	1	Aa2(cr)	
Deposits	3	0	aa3	1	Aa2	Aa2
Senior unsecured bank debt	3	0	aa3	1	Aa2	Aa2

[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 10

Category	Moody's Rating
BAUSPARKASSE SCHWAEBISCH HALL AG	
Outlook	Stable
Counterparty Risk Rating	Aa2/P-1
Bank Deposits	Aa2/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	a3
Counterparty Risk Assessment	Aa2(cr)/P-1(cr)
Issuer Rating	Aa2
ST Issuer Rating	P-1
PARENT: DZ BANK AG	
Outlook	Stable
Counterparty Risk Rating	Aa2/P-1
Bank Deposits	Aa2/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	a3
Counterparty Risk Assessment	Aa2(cr)/P-1(cr)
Issuer Rating	Aa2
Senior Unsecured	Aa2
Junior Senior Unsecured	A3
Junior Senior Unsecured MTN -Dom Curr	(P)A3
Subordinate	Baa1
Commercial Paper	P-1
Other Short Term -Dom Curr	(P)P-1

Source: Moody's Investors Service

Endnotes

1 The ratings shown are DZ BANK's long-term deposit and senior unsecured ratings and outlook, and BCA.

2 In 2020, BSH booked higher fee expenses that fee income, reflecting arrangement and acquisition fees, as well as the deferral of transaction costs.

3 Environmental risks can be defined as environmental hazards encompassing the effects of air pollution, soil or water pollution, water shortages and natural and human-made hazards (physical risks). Additionally, regulatory or policy risks, like the effect 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.

4 Social risk considerations represent a broad spectrum, including customer relations, human capital, demographic and societal 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 particularly high in the area of data security and customer privacy, which are 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 the demand for financial services, or socially driven policy agendas translating into regulations that affect banks' revenue bases.

5 Corporate governance is a well-established key driver for banks and the related risks are typically included in our evaluation of the banks' financial profile. Furthermore, 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 bank'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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