MOODY'S
INVESTORS SERVICE

CREDIT OPINION
27 July 2021

Update

Rate this Research

RATINGS

Bausparkasse Schwaebisch Hall AG

Domicile	Germany
Long Term CRR	Aa1
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	Aa1
Type	LT Bank Deposits - Fgn Curr
Outlook	Negative

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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CLIENT SERVICES

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Bausparkasse Schwaebisch Hall AG

Update to credit analysis

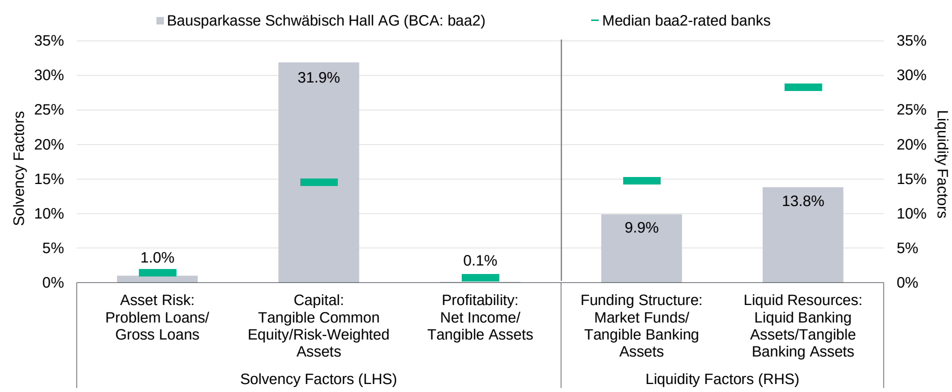
Summary

We assign Aa1(negative)/P-1 deposit and issuer ratings to Bausparkasse Schwaebisch Hall AG (BSH). We further assign Aa1/P-1 Counterparty Risk Ratings (CRRs), a baa2 Baseline Credit Assessment (BCA) and an a2 Adjusted BCA, as well as an Aa1(cr)/P-1(cr) Counterparty Risk (CR) Assessment.

BSH's Aa1 deposit ratings reflect the bank's baa2 BCA, three 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 and one notch of government support uplift, 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, Aa1/Aa1 negative, baa2)[1], including a profit-and-loss transfer agreement and sizeable investments in DZ BANK's liabilities; BSH's sound asset quality, very strong capitalisation and defensive market funding profile; and the narrow focus of its business model as prescribed by the special legal framework for German building societies (Bausparkassen), which requires BSH and its peers to focus closely 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

» Low-risk granular residential mortgage lending portfolio, with a clear focus on Germany (Aaa stable)

» High-quality, long-term retail deposit funding profile, with very limited use of market funding

Credit challenges

» Exposure to the low interest rate environment requires significant adjustments to the traditional building and loan association business model

» Expensive fixed-rate deposit funding weighs on profitability amid the low interest rate environment

» Limited earnings diversification, which results from its narrow business focus within the specific building and loan association legal framework

Outlook

The negative rating outlook reflects our view that the weak operating environment for banks in Germany could undermine the overall strength of Germany's cooperative banking sector, resulting in reduced affiliate support for BSH and lower Adjusted BCA and ratings.

Factors that could lead to an upgrade

» Upward pressure on BSH's ratings could develop following a two-notch upgrade of its parent's BCA, which currently caps BSH's BCA. A one-notch upgrade of DZ BANK's BCA would result in a one-notch upgrade of BSH's BCA, but this will likely be offset by a lower affiliate support uplift. Please refer to the latest Credit Opinion for DZ BANK for detailed factors that could lead to an upgrade or downgrade of the parent's BCA.

» An upgrade of BSH's unconstrained BCA could be prompted by a sustained improvement in the bank's profitability, particularly by successfully stabilising its net interest income against downward pressures in the current low interest rate environment.

» Under our Advanced LGF analysis, BSH's deposit and issuer ratings already benefit from the highest possible LGF results, leading to three notches of uplift to its Adjusted BCA.

Factors that could lead to a downgrade

» A downgrade of BSH's issuer and deposit ratings could occur following a downgrade of its BCA, which would highly likely happen only as a result of a downgrade of its parent's BCA; if G-Finanzgruppe's financial strength deteriorates or in the unlikely event the sector's commitment to support its members weakens.

» BSH's ratings could further be downgraded if the weight of liabilities designed to absorb losses in resolution within DZ BANK's liability structure shrank, in particular at the level of junior senior unsecured debt.

» BSH's unconstrained BCA could be downgraded if the bank fails to overcome the pressure exerted by the low interest rate environment on its business model.

Key indicators

Exhibit 2

Bausparkasse Schwaebisch Hall AG (Consolidated Financials) [1]

	12-20[2]	12-19[2]	12-18[2]	12-17[2]	12-16[2]	CAGR/Avg.[3]
Total Assets (EUR Billion)	81.7	77.5	71.7	68.3	65.9	5.5[4]
Total Assets (USD Billion)	99.9	87.0	81.9	82.1	69.5	9.5[4]
Tangible Common Equity (EUR Billion)	5.0	5.0	4.7	4.5	3.9	6.6[4]
Tangible Common Equity (USD Billion)	6.1	5.6	5.3	5.4	4.1	10.7[4]
Problem Loans / Gross Loans (%)	0.9	1.0	1.1	1.2	1.5	1.1[5]
Tangible Common Equity / Risk Weighted Assets (%)	31.9	34.4	32.5	33.3	28.3	32.1[6]
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	10.4	10.4	10.9	11.2	15.0	11.6[5]
Net Interest Margin (%)	0.7	0.7	1.1	1.2	1.0	0.9[5]
PPI / Average RWA (%)	0.7	0.6	2.2	2.4	1.3	1.4[6]
Net Income / Tangible Assets (%)	0.1	0.1	0.3	0.4	0.2	0.2[5]
Cost / Income Ratio (%)	82.5	85.3	61.5	59.0	73.3	72.3[5]
Market Funds / Tangible Banking Assets (%)	9.9	8.0	6.3	6.6	7.4	7.7[5]
Liquid Banking Assets / Tangible Banking Assets (%)	13.8	15.4	17.1	21.9	23.0	18.3[5]
Gross Loans / Due to Customers (%)	90.8	85.0	79.6	76.9	74.0	81.3[5]

[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 (Bausparkasse), with a market share of around 30% and additional Bauspar activities in Hungary (Baa3 positive), Slovakia (A2 stable) 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 2020, BSH had close to nine million clients, and it managed eight million Bauspar contracts worth €316 billion in Germany and two million contracts worth €40.1 billion outside Germany. As of year-end 2020, BSH's mortgage finance lending amounted to €53.8 billion (December 2019: €48.5 billion) in Germany and €4.9 billion (December 2019: €4.7 billion) outside Germany. BSH had around 6,500 employees as of year-end 2019, of which about half constitute 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 under 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 more than 90% of BSH's total exposures.

Recent developments

All G-20 countries have sustained severe output losses in 2020, but the contraction in some economies is sharper than in others. We expect the pace of improvement to be asymmetric across countries. The recovery path is uncertain and will remain highly dependent on the development and distribution of a vaccine, effective pandemic management and government policy support.

The European Central Bank (ECB) introduced a series of measures to help the European Union (EU) economies weather the widening effects of the coronavirus pandemic, temporarily increasing banks' liquidity provisions, and lowering regulatory capital and liquidity requirements. As part of these temporary measures, the ECB increased its targeted longer-term refinancing operations (TLTRO III) under more favourable terms, and its financial asset purchase programme, while refraining from lowering the ultralow interest rates further. Overall, the package aims to help banks continue to finance companies, and small- and medium-sized enterprises (SMEs) affected by the pandemic. The ECB's measures will provide limited relief for banks and their borrowers, and it will require continued significant fiscal policy measures by the EU and its member states to avert higher default rates in banks' lending books.

The Government of Germany launched a large stimulus package, and its support has been crucial for corporate borrowers in industries immediately hurt by the pandemic, such as the airlines, tourism, retail and shipping sectors, and smaller companies with weak liquidity and high leverage. The scale of the support package is unprecedented and is far larger than the support provided during the 2008-09 financial crisis. At the same time, the government made it easier to access its furlough scheme 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 and to automatic stabilisers that support household incomes when unemployment increases.

Detailed credit considerations

Close integration with DZ BANK limits the level of BSH's BCA

We cap BSH's 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 non-financial 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.

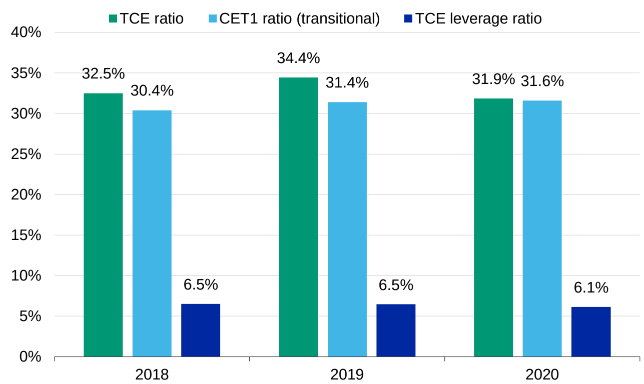
Building and loan association benefits from strong capital

We assign BSH a Capital score of aa2, one notch below the aa1 initial score. The assigned score reflects the bank’s very strong coverage of its risk-weighted assets by its regulatory Common Equity Tier 1 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 low interest rate environment and under its earnings transfer agreement with DZ BANK.

BSH’s very strong TCE ratio of 31.9% as of December 2020, down from 34.4% as of December 2019, benefits from the low risk weights assigned to its conservatively underwritten German residential mortgage portfolio under the internal ratings-based approach that it employs. In absolute terms, BSH’s leverage ratio (TCE/tangible banking assets) was 6.1% as of year-end 2020, slightly down from 6.5% a year earlier. We expect the bank's regulatory Tier 1 leverage ratio to improve in 2021 and exceed the TCE leverage ratio, mainly as a result of the future regulatory exclusion of BSH's intra-sector exposures from the denominator.

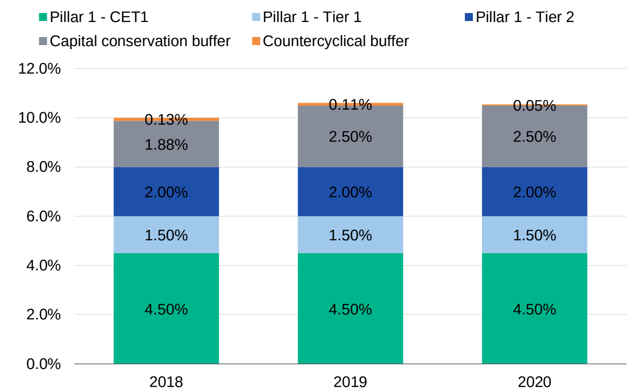
Our TCE metric excludes a €226 million technical security reserve that BSH treats as retained earnings in its IFRS accounts, which is also excluded from regulatory capital. Following a change in the German special law for building and loan associations in 2015, building and loan associations have been allowed to use this reserve more flexibly to offset the net interest margin pressure. As a result, among Germany’s building and loan associations, a significant portion of such reserves has been converted into Common Equity Tier 1-eligible capital components. This supported BSH’s TCE increase in 2017, when it reduced its technical security reserve from €703 million as of year-end 2016 to build additional core capital.

Exhibit 3
BSH's capital ratios clearly exceed regulatory requirements



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

Exhibit 4
BSH's total capital requirements



Source: Company reports

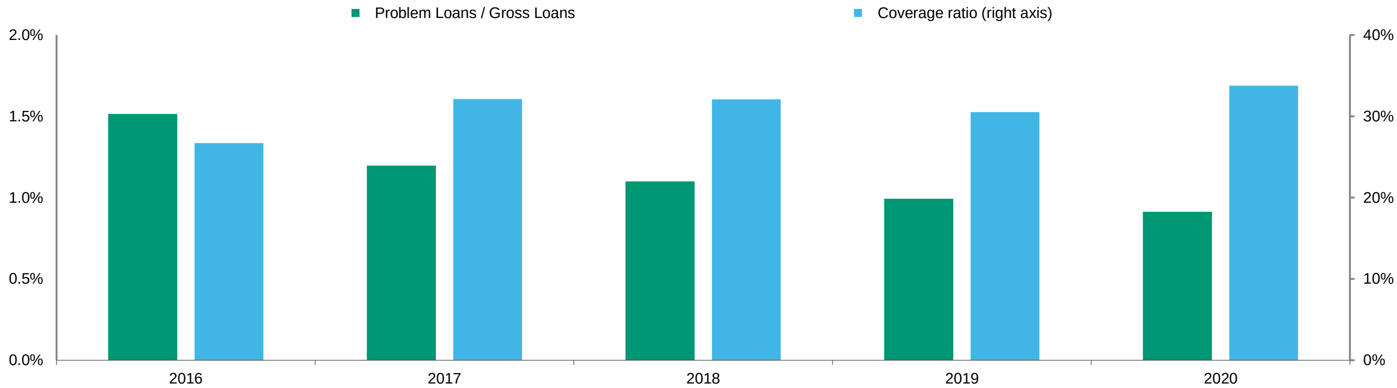
Low-risk residential mortgage lending limits asset risks

We assign BSH an a2 Asset Risk score, two notches below the aa3 initial score. The assigned score reflects very low problem loans and the very high recoveries that BSH has historically obtained from these loans. At the same time, the score incorporates a negative adjustment, driven by BSH's sensitivity to the interest rate environment, primarily the pressure that an extended period of low rates would exert on its business model and returns.

BSH's problem loans amounted to €539 million as of 31 December 2020, slightly up from €537 million as of year-end 2019. We consider BSH's higher year-end 2020 coverage of nonperforming loans by loan loss reserves of 33.8% (30.5% as of December 2019) adequate in light of the tight loan-to-value (LTV) limits set by the German special law for building and loan associations, which previously limited sector entities' capacity of taking LTV on their books at no higher than 80%. As a result of the owner equity cushions embedded in BSH's residential mortgage loans, the bank's recovery rates have traditionally been very high. Since late 2015, the Bausparkassen sector has been allowed to increase the lending-value-based LTV limit to 100% for owner-occupied homes only; however, this has had no visible negative impact on BSH's asset quality or recovery rates to date.

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. An aggravated and extended period of negative interest rates in Germany would incentivise Bauspar clients to extend the savings periods for their fixed-rate deposits and increase deposit balances further, while BSH and its peers would be challenged to reinvest such additional funds at a profit. Conversely, unexpectedly rapid and pronounced rate increases would expose the sector to deposit outflow and rising demand for loans at previously agreed fixed interest rates under the Bauspar product.

Exhibit 5
BSH's problem loan ratio remains very low

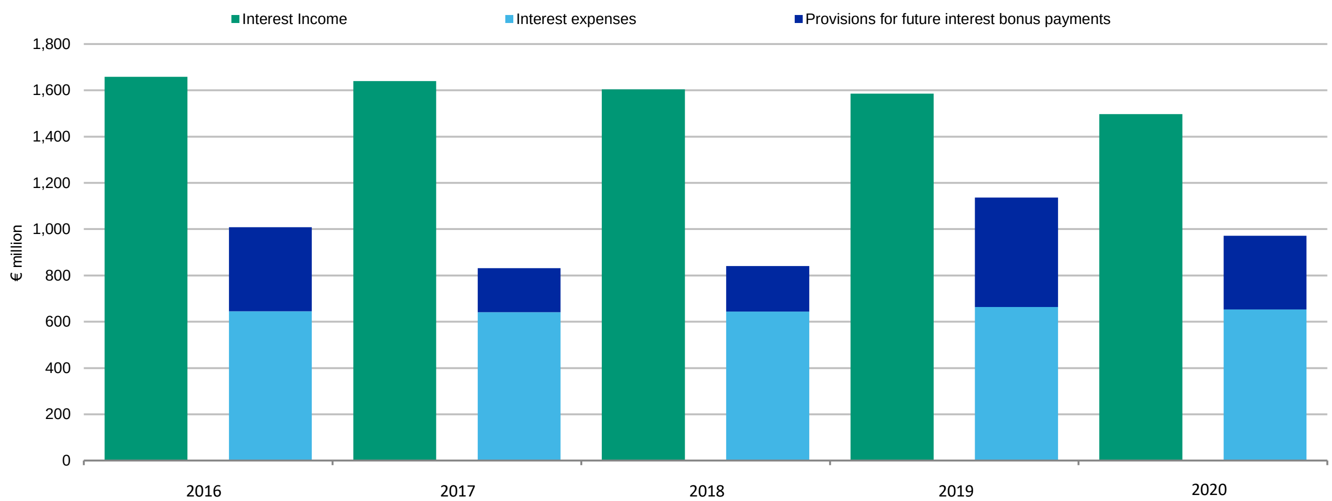


The problem loan ratio is in accordance with our definition; since 2018, according to IFRS 9 reporting standards.
Sources: Company reports and Moody's Investors Service

Profit remains strained as a result of a declining net interest margin

We assign BSH a b2 Profitability score, one notch above the b3 initial score. The assigned score reflects the stable results of the bank in 2020, which demonstrate its capacity to remain moderately profitable in an adverse economic environment, as well as the likelihood of continued pressure on BSH's net interest income, as Exhibit 6 shows, and our expectation that administrative costs will remain high because of the investment needed to implement the bank's digitalisation strategy.

Exhibit 6
Interest income is burdened by sticky interest expenses and provisioning for interest bonus payments



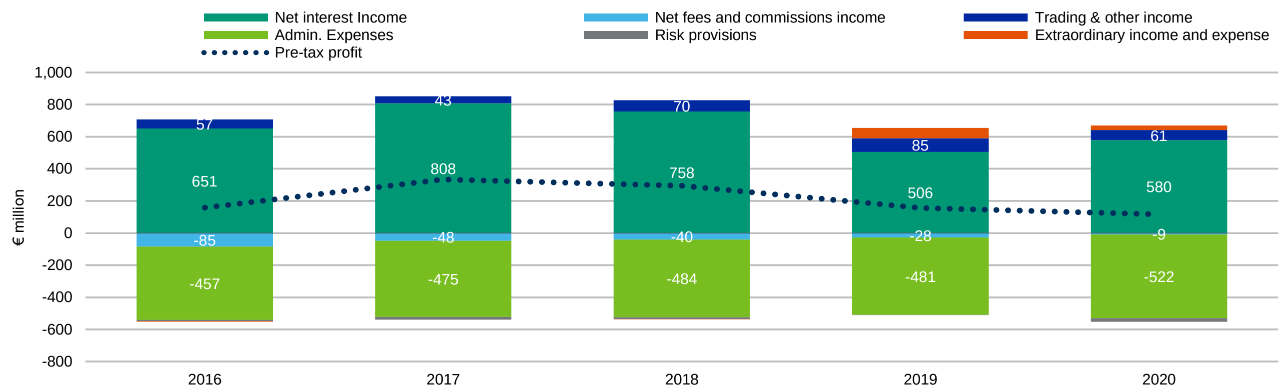
Source: Company reports

BSH's cost-to-income ratio will remain high in the short term. Initial investments in cost initiatives and IT implementation will gradually be recovered through a declining operating cost base. Over the next couple of years, we expect positive mix effects through a replacement of maturing securities with new residential mortgage loans to be broadly offset by declining net interest margins. These remain burdened by the limited pricing flexibility of BSH's Bauspar deposit base.

Declining net interest margins have strained BSH's moderate profitability. Recent vintage fixed-rate mortgage loans have been originated at significantly lower rates than the maturing back book, but their pricing remains more attractive than BSH's securities portfolio, which has been 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 2020 from 1.6% in 2014, a trend that is likely to continue over the next 12-18 months. In addition, BSH's net interest income will be burdened by rising annual amortisation expenses for deferred client acquisition costs booked under IFRS.

BSH reported a net income of €59 million in 2020, down from €166 million as of year-end 2019. The bank's earnings are highly dependent on its net interest income, which increased to €531 million as of year-end 2020 (2019: €462 million), because of significantly lower extraordinary additions to interest bonus reserves of €115 million (2019: €280 million), in addition to regular interest expenses on bonus reserves of €203 million (2019: €193 million). The improvement in net interest income was partly offset by higher loan loss provisions of €29 million (2019: €4 million) and higher administrative expenses of €526 million (2019: €486 million) in 2020, which contained €29 million in expenses for a cost management programme launched in 2020. Additionally, BSH realised only €57 million of net gain on sales of investment securities in 2020, significantly below the €151 million in 2019, which was driven mainly by the sale of its stake in the Czech JV CMSS.

Exhibit 7
BSH's operating income highly depends on the net interest income



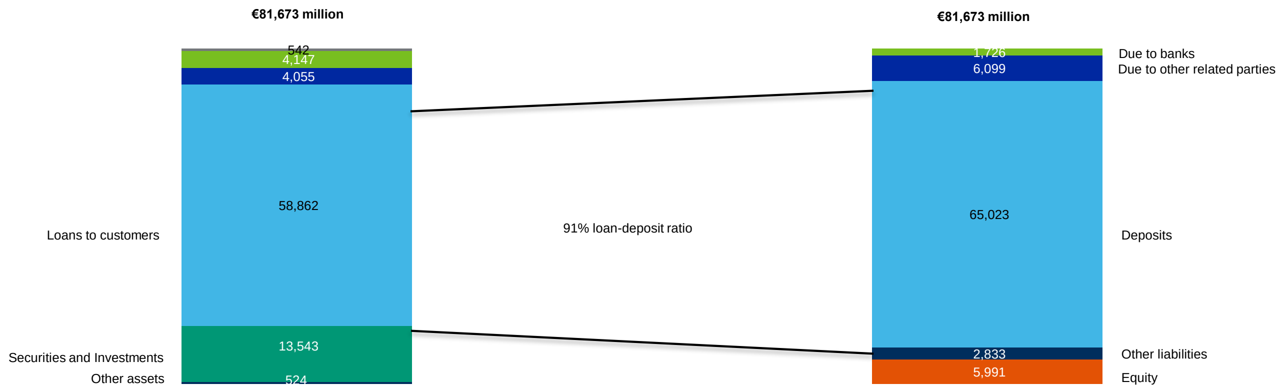
Sources: Company reports and Moody's Investors Service

Successful covered bond issuance will diversify funding sources and introduce a moderate degree of market funding

We assign BSH an aa3 Funding Structure score, one notch above the initial score. The strong score reflects its clear focus on deposit funding and the fact that most of the current interbank funding is from the cooperative banking 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 successfully launched mortgage covered bond issuance programme (Aaa stable), which will at least partly diversify its funding mix 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 a second benchmark-size covered bond in April 2021. With a loan-to-deposit ratio of 91% as of year-end 2020 (December 2019: 85%), 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.

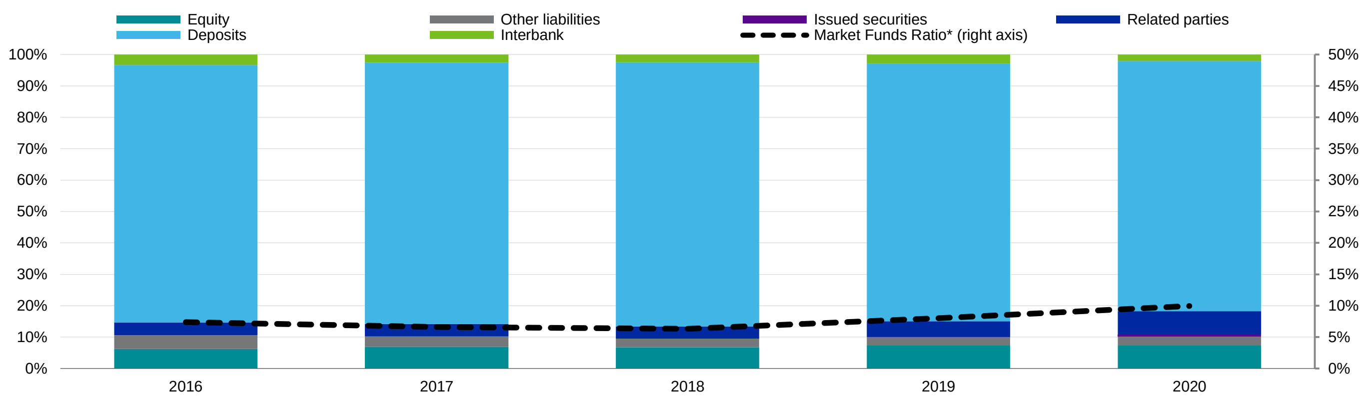
Exhibit 8
BSH's deposit overhang dominates its liability side and is partly invested in liquid assets



Sources: Company reports and Moody's Investors Service

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 9
BSH has a strong deposit franchise



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

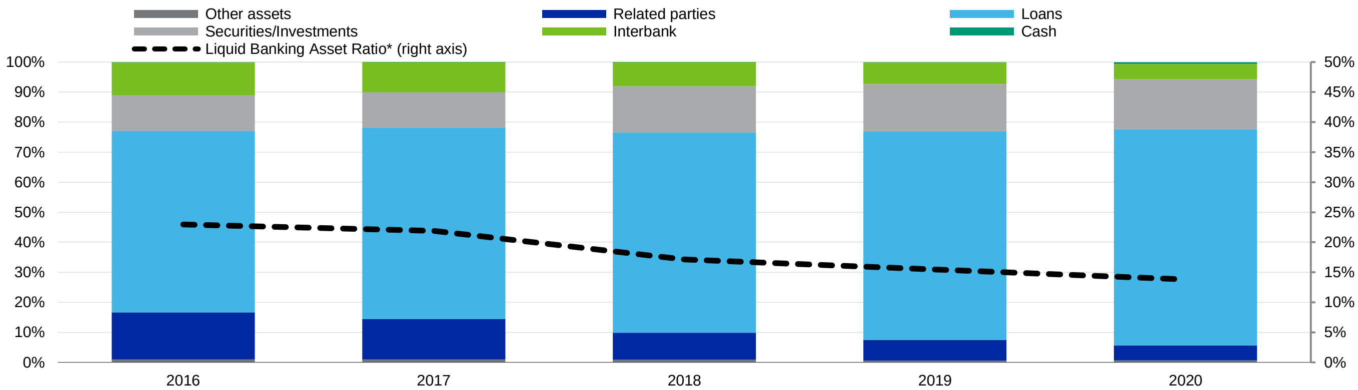
Strong liquidity buffer provides room for business growth

We assign BSH a baa2 Liquidity score, two notches above the initial score, to reflect its sound buffer of liquid resources. This is supplemented by interbank assets and securities from the cooperative banking sector.

BSH has been operating with a steady portfolio of more than €8 billion of securities held as part of its liquidity buffer, predominantly from issuers outside the cooperative sector. The portfolio is designed to absorb any potential liquidity stress that could arise under adverse conditions and will likely remain at least constant while BSH grows its overall business volumes. BSH also holds a sizeable portfolio of intragroup claims and bonds that could be used at least in part to cover any liquidity shortfalls, if needed.

BSH has gradually been reducing the relative weight of its securities portfolio while increasing the weight of its mortgage book. We expect this increased focus of the bank's balance sheet on mortgage loans at the expense of liquid assets to be partly mitigated by the gradual inclusion of new mortgages into BSH's mortgage cover pool, allowing for a long-term funding of these assets and granting BSH access to additional liquidity through covered bond issuances, if needed. To comply with the regulatory liquidity coverage ratio, BSH maintains broad safety buffers to the regulator's minimum requirement of 100%.

Exhibit 10
BSH's balance-sheet liquidity is declining



*Liquid banking assets ratio = Liquid assets/tangible banking assets.
Sources: Company reports 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[2] (see our environmental risks heat map for further information), 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.

For social risks, we also place BSH in line with our general view of the banking sector, which indicates moderate exposure. This includes considerations in relation to the coronavirus pandemic, given 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[3]. 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. In our view, 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[4] is highly relevant for BSH, as it is to all banks. BSH is integrated into DZ BANK's appropriate risk management framework relating 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 a2 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 three notches of rating uplift from the baa2 BCA, benefitting 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 deposits and issuer ratings, our LGF analysis indicates an extremely low loss given failure, leading to a three-notch uplift from its a2 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 Aa1/P-1

The CRRs are four notches above BSH’s a2 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 Aa1(cr)/P-1(cr)

BSH’s Aa1(cr) CR Assessment is four notches above the a2 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 our 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 11

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	1.0%	aa3	↔	a2	Interest rate risk	Collateral and provisioning coverage
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	31.9%	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	9.9%	a1	↓	aa3	Extent of market funding reliance	Expected trend
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	13.8%	ba1	↔	baa2	Stock of liquid assets	Additional liquidity resources
Combined Liquidity Score		baa1		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				3		
Adjusted BCA				a2		

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	aa2
Counterparty Risk Assessment	-	-	-	-	-	-	-	3	0	aa2 (cr)
Deposits	-	-	-	-	-	-	-	3	0	aa2
Senior unsecured bank debt	-	-	-	-	-	-	-	3	0	aa2

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	aa2	1	Aa1	Aa1
Counterparty Risk Assessment	3	0	aa2 (cr)	1	Aa1(cr)	
Deposits	3	0	aa2	1	Aa1	Aa1
Senior unsecured bank debt	3	0	aa2	1	Aa1	Aa1

[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 12

Category	Moody's Rating
BAUSPARKASSE SCHWAEBISCH HALL AG	
Outlook	Negative
Counterparty Risk Rating	Aa1/P-1
Bank Deposits	Aa1/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	a2
Counterparty Risk Assessment	Aa1(cr)/P-1(cr)
Issuer Rating	Aa1
ST Issuer Rating	P-1
PARENT: DZ BANK AG	
Outlook	Negative
Counterparty Risk Rating	Aa1/P-1
Bank Deposits	Aa1/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	a2
Counterparty Risk Assessment	Aa1(cr)/P-1(cr)
Issuer Rating	Aa1
Senior Unsecured	Aa1
Junior Senior Unsecured	A2
Junior Senior Unsecured MTN -Dom Curr	(P)A2
Subordinate	A3
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 its BCA.

2 Environmental risks can be defined as environmental hazards encompassing the impacts of air pollution, soil or water pollution, water shortages and natural and human-made hazards (physical risks). Additionally, regulatory or policy risks, like the impact of carbon regulation or other regulatory restrictions, including the related transition risks like 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.

3 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.

4 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 like 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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Moody's
INVESTORS SERVICE