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CREDIT OPINION
11 December 2020

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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Bausparkasse Schwaebisch Hall AG

Update to credit analysis

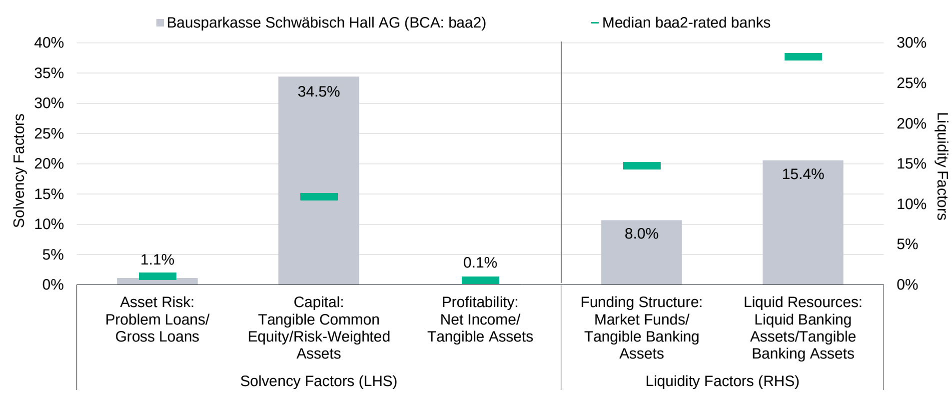
Summary

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, given its membership in 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



The profitability and asset risk ratios reflect the averages for 2017-19.
Source: Moody's Financial Metrics™

Credit strengths

» Exceptionally strong and high-quality risk-weighted capitalisation

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

» 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 material adjustments to the traditional building and loan association business model

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

» The bank has limited earnings diversification, resulting from its narrow business focus within the specific building and loan association legal framework

Outlook

» The negative outlook on the long-term deposit and issuer ratings 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 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 sustainable improvement in the bank's profitability, particularly by successfully stabilizing its net interest income against downward pressures from the current low-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 rating uplift to its Adjusted BCA.

Factors that could lead to a downgrade

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

» BSH's ratings could further be downgraded if DZ BANK displays a liability structure with a materially lower volume of senior debt, including junior senior unsecured liabilities, compared with the group's total banking assets.

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

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
Bausparkasse Schwaebisch Hall AG (Consolidated Financials) [1]

	12-19[2]	12-18[2]	12-17[2]	12-16[2]	12-15[2]	CAGR/Avg.[3]
Total Assets (EUR Billion)	77.5	71.7	68.3	65.9	61.2	6.1[4]
Total Assets (USD Billion)	87.0	81.9	82.1	69.5	66.5	6.9[4]
Tangible Common Equity (EUR Billion)	5.0	4.7	4.5	3.9	3.5	9.4[4]
Tangible Common Equity (USD Billion)	5.6	5.3	5.4	4.1	3.8	10.3[4]
Problem Loans / Gross Loans (%)	1.0	1.1	1.2	1.5	1.8	1.3[5]
Tangible Common Equity / Risk Weighted Assets (%)	34.4	32.5	33.3	28.3	29.5	31.6[6]
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	10.4	10.9	11.2	15.0	17.8	13.1[5]
Net Interest Margin (%)	0.7	1.1	1.2	1.0	1.5	1.1[5]
PPI / Average RWA (%)	0.6	2.2	2.4	1.3	3.6	2.0[6]
Net Income / Tangible Assets (%)	0.1	0.3	0.4	0.2	0.4	0.3[5]
Cost / Income Ratio (%)	85.1	61.5	59.0	73.3	54.9	66.8[5]
Market Funds / Tangible Banking Assets (%)	8.0	6.3	6.6	7.4	5.7	6.8[5]
Liquid Banking Assets / Tangible Banking Assets (%)	15.4	17.1	21.9	23.0	24.6	20.4[5]
Gross Loans / Due to Customers (%)	85.0	79.6	76.9	74.0	71.2	77.3[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 96.9% 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 2019, BSH had close to 9 million clients, and it managed 8.2 million Bauspar contracts worth €313 billion in Germany and 2.1 million contracts worth €40 billion outside of Germany. As of year-end 2019, BSH's mortgage finance lending amounted to €48.5 billion (December 2018: €43.8 billion) in Germany and €5.7 billion (December 2018: €10.7 billion) outside of 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

The coronavirus pandemic is causing an 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. In Europe, the coronavirus pandemic 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 pandemic. 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 with its peers, the level of capital 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 a series of measures 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 SMEs suffering from the effects of the coronavirus pandemic. We believe that the ECB's measures will provide limited relief for banks and their borrowers, and that it will require significant fiscal policy measures by the EU 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 pandemic 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 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, as well as to automatic stabilisers that support household incomes when unemployment increases.

Detailed credit considerations

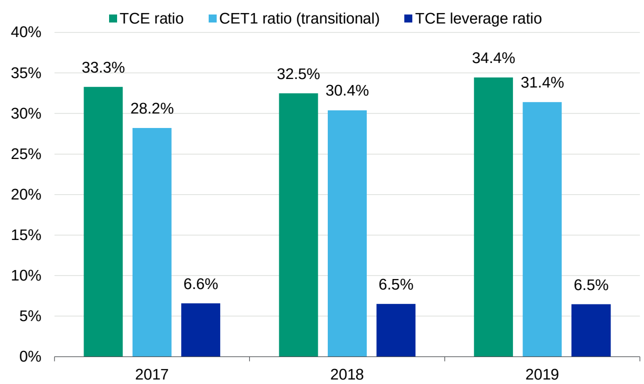
Building and loan association benefits from strong capital levels

We assign BSH an aa2 Capital score, 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 amid the low interest rate environment and under its earnings transfer agreement with DZ BANK.

BSH's very strong TCE ratio of 34.4% as of December 2019 (up from 32.5% as of December 2018) 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 TCE still translated into a leverage ratio of 6.5% of its tangible banking assets as of year-end 2019, unchanged from that a year earlier. We expect the bank's regulatory Tier 1 leverage ratio to improve in 2021 and to exceed the TCE leverage ratio, mainly as a result of the future regulatory exclusion of BSH's intra-sector exposures from the denominator.

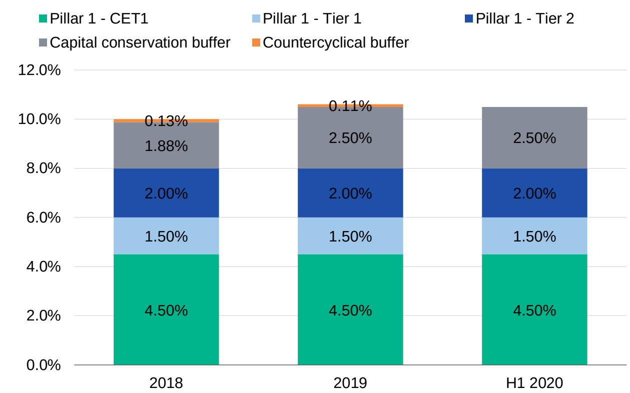
Our TCE metric excludes a €278 million technical security reserve that BSH treats as retained earnings in its IFRS accounts but which is also excluded from regulatory capital. Following a change in the German special law for building and loan associations in 2015, building and loan associations have been allowed to use this reserve more flexibly to offset the net interest margin pressure, with the result that among Germany's building and loan associations, a significant portion of such reserves have 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

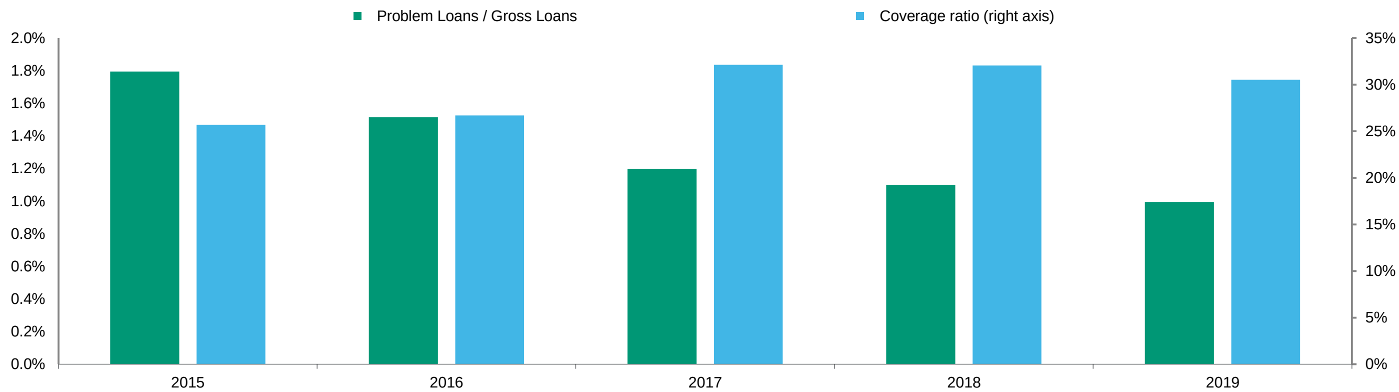
Low-risk residential mortgage lending limits asset risks

We assign BSH an a2 Asset Risk score, two notches below the aa3 initial score. The assigned score reflects a very low level of problem loans and the very high recoveries BSH has historically obtained from these. 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 €537 million as of 31 December 2019, moderately up from €528 million as of year-end 2018. We consider BSH's slightly lower nonperforming loan coverage by loan-loss reserves of 30.5% (32.1% as of December 2018) 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 raise the lending-value-based LTV limit to 100% for owner-occupied homes only, but this has had no visible negative impact on BSH's asset quality or recovery rates to date.

While 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

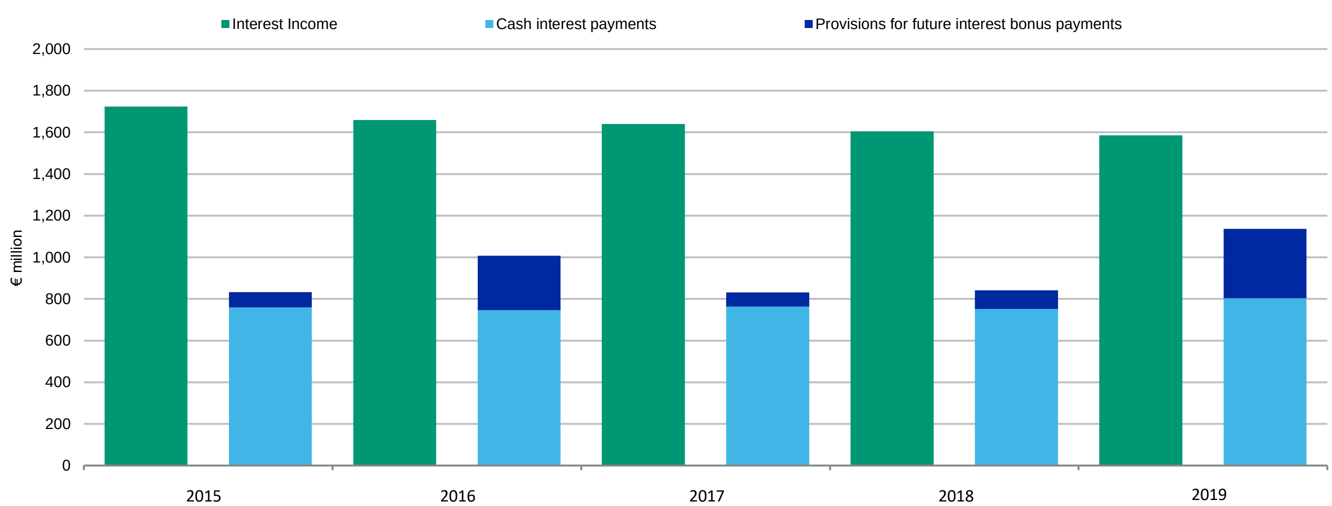


Problem loan ratio is in accordance with our definition; since 2018 according to IFRS 9 reporting standards.
Sources: Company reports and Moody's Investors Service

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 year-to-date, which demonstrate its capacity to remain profitable in an adverse economic environment, but also the likelihood of continued pressure on BSH's net interest income, as Exhibit 6 shows, as well as 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

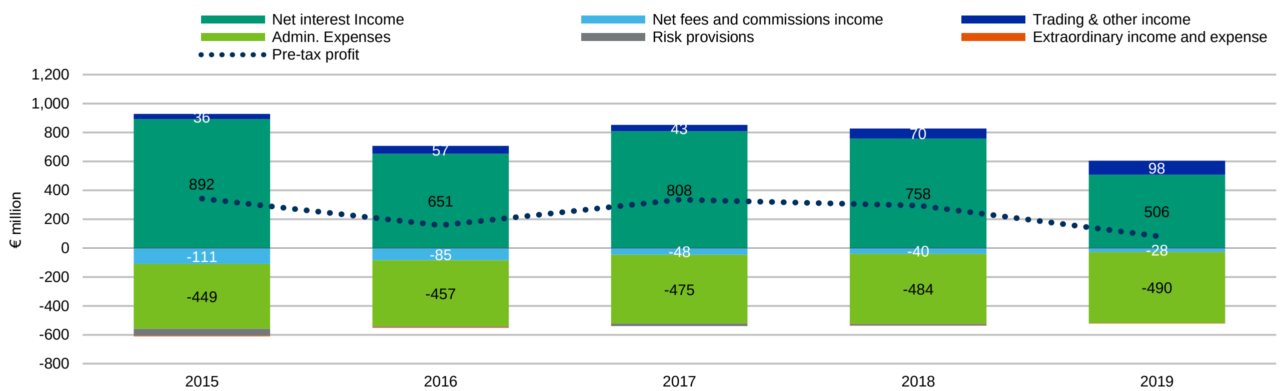
We believe BSH's cost-to-income ratio will remain elevated in the short-term. Initial investments in cost initiatives and IT implementation will gradually be recovered through a declining operating cost base. During the next couple of years, we expect positive mix effects through a replacement of maturing 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.

A declining net interest margins have exerted pressure on 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 unfavorably 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 2019 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.

In the first six months of 2020, BSH contributed €75 million of pretax income (H1 2019: €149 million) to DZ BANK's group results. Despite the pressure of persistently low results on BSH's net interest income, its half-year results did not include an extraordinary addition to interest bonus reserves, so that we believe this year's reserve additions will stay significantly below 2019's €280 million. In H1 2020, BSH took a €30 million impairment charge on the value of its Slovakian JV following the extension of the country's special bank levy, a decision that was during H2 of 2020 reverted by the new government.

During the first half of 2020, BSH's new mortgage origination activity with a total volume of €9.4 billion)[2] was not negatively impacted by the temporary lockdown and instead markedly above new loan origination during H1 2019 (€7.9 billion). At the same time, we understand loans subject to payment deferrals have represented a very low share of BSH's German mortgage loan book and a very high share of loans of its Hungarian joint venture, similar to the very low market-wide moratoria adoption rates in Germany and the very high Hungarian rates driven by that country's opt-out moratorium scheme.

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



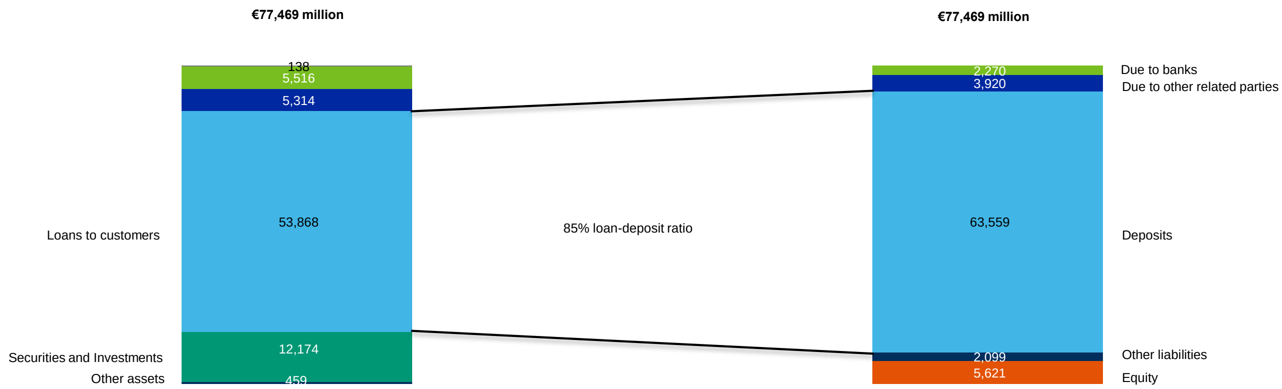
Sources: Company reports, Moody's Financial Metrics™ and Moody's Investors Service estimates

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

We assign BSH an a1 Funding Structure score, one notch below 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 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) that 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. With a loan-to-deposit ratio of 85% as of year-end 2019 (December 2018: 79%), BSH's residential mortgage lending activities are comfortably funded through 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.

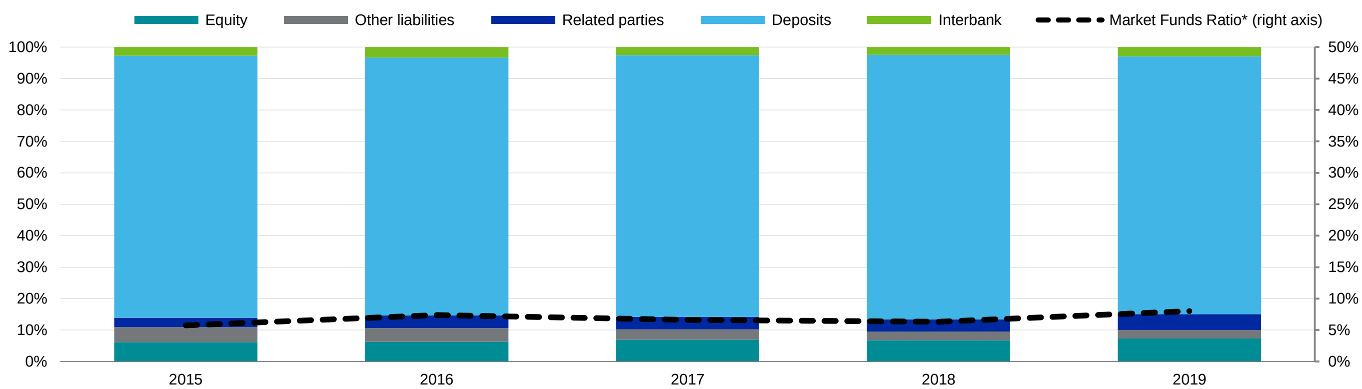
Exhibit 8
BSH's deposit overhang dominates its liability side and is partly invested in liquid assets



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 issuance, 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

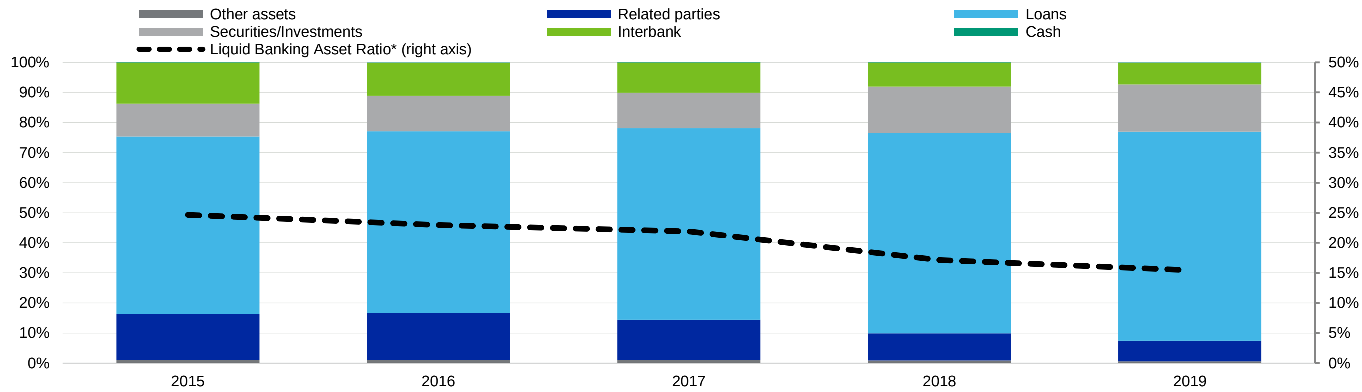
Strong liquidity buffer provides room for business growth

We assign BSH an a2 Liquidity score, three notches above the initial score, to reflect its comfortable 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 liquidity fluctuations at short notice if needed.

BSH plans to gradually reduce the relative weight of its securities portfolio while further increasing the role of its mortgage book. We do not necessarily expect such a development to exert pressure on the available liquidity buffers, because the bank will benefit from an increasing issuance capacity under its mortgage covered bond programme and BSH's approach towards compliance with the regulatory liquidity coverage ratio remains one of maintaining 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 a2 Financial Profile score. BSH depends almost exclusively on one business line, mortgage savings and loan contracts, and we therefore classify it as a monoline bank. In terms of its 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 on the banking sector, BSH has a low exposure to environmental risks[3] (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 modernisations represent a significant part of BSH's new lending business.

For social risks, we also place BSH in line with our general view on the banking sector, which indicates a moderate exposure. This includes considerations in relation to the rapid and widening spread of the coronavirus pandemic, given the substantial implications for public health and safety and the deteriorating global economic outlook, creating a severe and extensive credit shock 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 specialized 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 we therefore 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 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 given 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 materially 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, 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 into 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 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.

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

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

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)

CRRs are opinions of the ability of entities to honour the uncollateralised portion of non-debt counterparty financial liabilities (CRR liabilities) and also reflect expected financial losses in the event that such liabilities are not honoured. CRRs are distinct from ratings assigned to senior unsecured debt instruments and issuer ratings because they reflect the fact that, in a resolution, CRR liabilities might benefit from preferential treatment compared with senior unsecured debt. Examples of CRR liabilities include the uncollateralised portion of payables arising from derivatives transactions and the uncollateralised portion of liabilities under sale and repurchase agreements.

BSH's CRRs are positioned at Aa1/P-1

The CRRs are positioned four notches above BSH's a2 Adjusted BCA, based on the extremely low loss given failure from the high volume of instruments at DZ BANK's 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

The CR Assessment is an opinion of how counterparty obligations are likely to be treated if a bank fails and is distinct from debt and deposit ratings in that it (1) considers only the risk of default rather than both the likelihood of default and the expected financial loss suffered in the event of default, and (2) applies to counterparty obligations and contractual commitments rather than debt or deposit instruments. The CR Assessment is an opinion of the counterparty risk related to a bank's covered bonds, contractual performance obligations (servicing), derivatives (for example, swaps), letters of credit, guarantees and liquidity facilities.

BSH's CR Assessment is positioned at Aa1(cr)/P-1(cr)

BSH's Aa1(cr) CR Assessment is positioned 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. To determine the CR Assessment, we focus purely on subordination, taking no account of the volume of the instrument class.

Methodology and scorecard

Methodology

The principal methodology we used in rating BSH was Banks, 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 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		1.1%	aa3	↔	a2	Interest rate risk	Collateral and provisioning coverage
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)		34.4%	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		8.0%	a1	↔	a1	Extent of market funding reliance	Expected trend
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets		15.4%	baa2	↔	a2	Stock of liquid assets	Asset encumbrance
Combined Liquidity Score			a3		a1		
Financial Profile					a2		
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 Thereof, €3.7 billion were booked to the accounts of primary banks of the cooperative banking sector (H1 2019: 3.3 billion).

3 Environmental risks can be defined as environmental hazards encompassing the impacts of air pollution, soil/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.

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 is a further social risk. 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 related risks are typically included in our evaluation of the banks' financial profile. Further, 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 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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